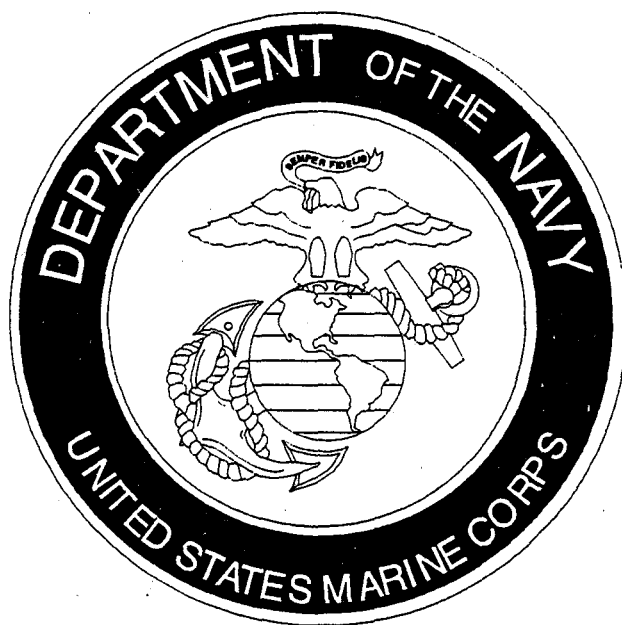


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14. ABSTRACT This manual provides specific procedures for using the software. It also helps units to process and submit their after-action reports in accordance with Marine Corps Order (MCO) 5000.17. Although outdated, this manual provides good reference material on the old system. Appendix F also provides good information on the lesson learned formats.						
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MARINE CORPS LESSONS LEARNED SYSTEM (MCLLS)



USER'S MANUAL

(Version 4.0)

20 AUGUST 1993

Prepared by the
Institute for Simulation and Training
University of Central Florida

FOREWORD

The Marine Corps Lessons Learned System (MCLLS) User's Manual (Version 4.0), dated 20 August 1993, was prepared by the Institute for Simulation and Training of the University of Central Florida, in support of the Warfighting Development Integration Division (WDID). This manual provides specific procedures for using the software. It also helps units to process and submit their after-action reports in accordance with Marine Corps Order (MCO) 5000.17.

Questions regarding software operation should be directed to the MCLLS Data Base Section, WDID, at DSN 278-4387/4429 or commercial (703) 640-4387/4429.

The MCLLS Data Base Section welcomes comments, constructive criticism, or suggested changes as a means to improve future editions of this manual and the applicable software. Forward suggestions to -

Warfighting Development Integration
Division (C391)
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Quantico, VA 22134-5001

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CHAPTER 1 - UNDERSTANDING MCLLS SOFTWARE

1. SCOPE

Identification. This manual applies to the Marine Corps Lessons Learned System (MCLLS), Version 4.0, issued by the Marine Corps Combat Development Command, Warfighting Development Integration Division (WDID) (C 391).

MCLLS is a stand-alone data base management system that enables units throughout the Marine Corps to use the Marine Corps master lessons learned data base, and to build their own lessons learned data base. The system allows Marines to easily and quickly add lessons and observations from training exercises and real-world operations to the data base. MCLLS also accepts lessons learned that have been written through the use of the pre-formatted MCLLS Instructional Input Program (MIIP). MIIP is available upon request from WDID.

MCLLS reports are fully compatible with the Joint Uniform Lessons Learned System (JULLS) reporting system and can be submitted via the Amphibious Task Force Commander or the Joint Task Force Commander, if one has been designated for an exercise or operation. Accordingly, lessons learned that are written using either MIIP or MCLLS are formatted in accordance with Joint After Action Reporting System (JAARS) requirements. Marines will therefore be able to avoid having to create the same after action information twice.

2. SYSTEM OVERVIEW

a. **The Reason for MCLLS.** MCLLS provides the answers to several questions: How do we learn from our past exercises and operations? How can we avoid making the same mistakes again? How can we efficiently and rapidly develop our next exercise objectives? Finally, how do we track our Remedial Action (RA) items within the Remedial Action Program (RAP)?

b. **What MCLLS Does.** MCLLS allows you to quickly access and manipulate the information stored in a large lessons learned data base. The MCLLS options include adding information to the data base, modifying the information in the data base, and deleting information from the data base. You can also generate any of the 7 pre-formatted reports, each summarizing specific information contained in the data base. You can search the data base for specific information by a number of different methods. For example, you can conduct a search using the record number or the MCLLS number associated with each lesson learned, or you can perform a keyword search, or you can use a string of text from narrative discussions, or the fields in the administrative data, or a combination of all of the above. After a search, you can

review administrative data about a MCLL, read the narrative description of the lesson, view all of the keywords associated with it, or review current milestones or sources for a RAP item.

c. **The Two Types of a MCLL.** There are two distinct types of a MCLL. One is a SUMMARY Lesson Learned and the second is an INDIVIDUAL Lesson Learned. The two types are slightly different in both the required administrative information and the narrative text items to be reported; they have correspondingly different structures and format. Routinely, an after action report has a single SUMMARY lesson learned (although it may be in two or more parts because of its length) and a large number of the INDIVIDUAL type. Appendix F provides formats for both the SUMMARY and the INDIVIDUAL lesson learned.

3. **DOCUMENT OVERVIEW.** In writing this manual, we have assumed that the MCLLS user can operate a computer at a basic level. By basic level, we mean that the user can turn the machine on and off, insert a diskette or find the directory that contains the program, and press the ENTER key.

a. **Purpose.** The purpose of this manual is to provide Marines with an easy-to-read tutorial and reference manual. The content is presented in a manner consistent with this purpose. The examples shown in the manual will have the following conventions when entering commands.

(1) Text surrounded by the less than symbol "<", and the greater than symbol, ">", represent commands you should type or keys you should press. To enter a command, simply use the keyboard to type whatever is between the "< >". For example, to follow these directions,

type <MCLLS> and press <Enter>,

you would type "MCLLS" and then press the ENTER key.

(2) If a single key is listed between the "<" and the ">", then press that particular key. If two keys are listed between the "< >", then you should hold down the first one while pressing the second key. For example, <Alt-Q> is the key combination to exit (or Quit) MCLLS. To exit MCLLS, hold down the "Alt" key and press the "Q" key.

NOTE: Function keys such as F1, F2, F3, F4, remember, are separate keys, usually located across the top of the keyboard or in a group at the left hand side of it.

NOTE2: There are two keys that can be used in almost every screen in MCLLS. If you remember that the <F1> key will almost always provide you with HELP about that specific part of the program, and that <Esc> will almost always back you up one screen, you will find MCLLS to be a genuinely easy-to-use software program.

4. Referenced documents.

- a. MCO 5000.17, 5 March 1990 - THE MARINE CORPS LESSONS LEARNED SYSTEM (MCLLS)
- b. Joint Pub 1-03.30, 15 April 1991 - JOINT AFTER ACTION REPORTING SYSTEM (JAARS)

CHAPTER 2 - INSTALLATION

1. **Initialization.** As indicated in Chapter 1, MCLLS is a stand-alone data base management system. The INSTALLATION DISK that accompanies the MCLLS system disk contains the necessary files to install MCLLS (and other software such as a MCLLS spell checker) onto a hard drive computer. The files are too large to run on a floppy drive system. To install all of the MCLLS software, i.e., the program and spell checker, requires at least 2½ Megabytes of available disk space. This manual also presumes you are using a color monitor. MCLLS will work perfectly well with a monochrome monitor as long as you tell the system that that is what you have. If you are using a monochrome monitor, you should disregard comments in this manual pertaining to color monitors.

NOTE: The version 4.0 software MUST be installed onto a hard drive. If your computer has only floppy drives, you CANNOT install MCLLS 4.0 and must continue to use Version 1.3.

The following steps will walk you through the installation of MCLLS onto your computer.

- a. Ensure that your computer is turned on.
- b. Place the MCLLS INSTALLATION disk in your floppy drive, change to that drive, and type <INSTALL>. The Installation program provides you with information regarding the amount of disk space required to complete the installation.
- c. After reading the information screen, press <Enter>. The program asks you on which drive to install MCLLS. Type in the desired drive and press <Enter>.

After the Installation program initializes the MCLLS directory, you will see a screen that lists the MCLLS components. Highlight the component you intend to install and press <Enter>. The install program will then ask you to insert the correct disk and press <Enter> to begin installing. After the highlighted component has been properly installed, a check (✓) will appear indicating that the installation is complete. Continue this process for each component that you want to install.

NOTE: Because of the size of the MCLLS program files, it may take a little while to install on older, slower computers. Installing the spell checker will take several minutes on most computers.

When you have installed all of the MCLLS components that you want to install, choose the last option on the menu **Finish Installation**. This option will properly configure your **AUTOEXEC.BAT** and **CONFIG.SYS** files to ensure that the MCLLS system functions as designed.

2. **Conventions Using MCLLS.** Each screen in MCLLS has helpful information across the top and bottom of it. Also, "hot keys" are shown along with a word or two to tell you what those keys do when activated in that particular screen.

a. Whenever you see an option that is shown in an "off yellow" color of print rather than the combination of red and black lettering, that option is "disabled" and will not work at that particular moment. Additionally, the one red letter associated with any menu choice is the "hot" letter for that choice. Pressing it alone (drop down menu) or in combination with the "Alt" key (main menu) will activate that menu selection.

b. MCLLS also permits you to use the arrow keys to move from one menu choice to another. Whenever the choice that you want to activate has the darkened background, the <Enter> key will activate it. Using a mouse to move to and click on your choice will do the same thing, but the mouse will not function when you are in the narrative text fields of any individual MCLL. Use of a mouse is also not possible in the Modify/Edit or Modify/Add options, because these are administrative data fields that require information.

CHAPTER 3 - WORKING WITH MCLLS

1. **The MCLLS Main Menu.** Once the INSTALLATION has been completed, typing <MCLLS> <Enter> at the C:\ prompt will activate the program and take you to the Main Menu. The Main Menu is across the top of the screen, and the File function automatically provides a drop down window with four active and three disabled options. Note that the Delete, Copy, and Rename options are disabled.

Note: If you have a monochrome monitor, at the C:\ prompt, type <MCLLS M> <Enter>.

2. **The MCLLS File Function.** When activating MCLLS, it will always insist that you Use an existing data base or Build a new data base before you are allowed to perform any of the other functions dealing with lessons learned. The File Function does permit you to Exit or pull up an information screen (About MCLLS). Otherwise you need to access an active data base to do anything with MCLLS. Note at the bottom of the sample screen that there is no data base name specified and there are zero records in the **current selected list**.

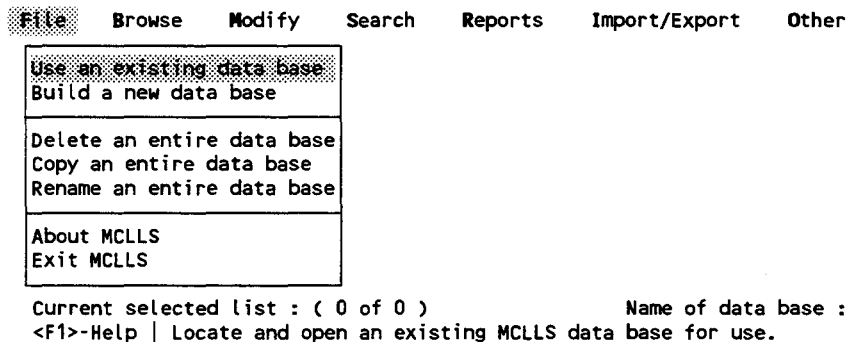


Figure 1

3. **Use an existing data base.** Pressing the <Enter> key when the Use an existing data base option has the darkened background will provide a pop-up window for selecting an existing data base on which to work. The darkened background will continue to be visible as you move to additional menus and decision points throughout MCLLS.

Converting an older version data base. Because of a change to the MCLLS programming language, data bases created using prior versions of MCLLS (1.3 or earlier) will have to be converted to be run in Version 4.0. Whenever you tell MCLLS to select one of those data bases, MCLLS will automatically convert the data base. It will not have any visible effect on any of your data.

Note: The Conversion may take time depending on how fast your computer runs and how large your data base(s) is/are. MCLLS will tell you that the automatic conversion is in progress.

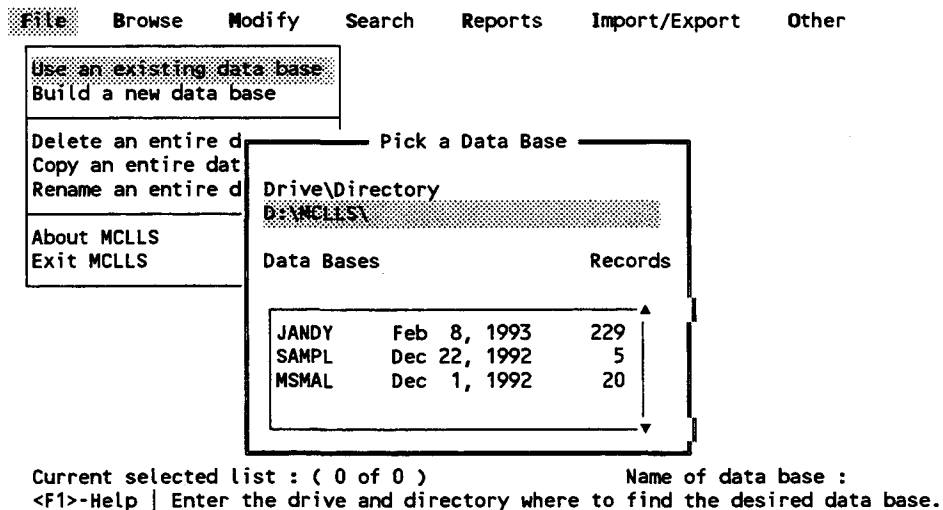


Figure 2

Note that the example shows that the Drive is D:\ rather than the C:\ drive where the Installation Program told you to install MCLLS. Because a MCLLS data base may be classified or, at least sensitive, this manual will sometimes use the D:\ drive for the examples. It represents a removable drive or a Bernoulli drive, or some similar external drive that you can lock up in a secure container. One additional reason for this is to emphasize that MCLLS does not care whether the system and the data base are on the same drive or not.

4. Build a new data base. Selecting this option merely enables you to start building a group of lessons learned from scratch. MCLLS will ask you to enter on what drive and in which directory to build the new data base. Then, MCLLS requires that you give the new data base a name up to five characters long.

File	Browse	Modify	Search	Reports	Import/Export	Other
------	--------	--------	--------	---------	---------------	-------

Use an existing data base
Build a new data base
Delete an entire data base
Copy an entire data base
Rename an entire data base
About M
Exit MC

New Data Base Name _____
Enter Drive/Directory: D:\MCLLS\ _____
Enter Unique Data Base Name: DESRT

Current Selected list : (0 of 0) Name of data base :
<F1>-Help | Enter the name of the data base you want to create.

Figure 3

5. **Delete an entire data base.** This is not an option you are expected to use very often, but discussion of it points out two conventions you will see throughout MCLLS. First, you cannot delete data in a single step; the program consistently requires you to confirm a decision to delete data. Second, it reminds you that once you delete data it cannot be recovered. Third, MCLLS will not let you delete the data base in which you are working. If you try, MCLLS will give you a message telling you that you cannot, and require you to press <Esc> to continue working. If you choose to delete another data base, MCLLS will give you a confirmation message with "No" as the expected answer. You can only delete an entire data base after you change the **N** to a **Y**, then press <Enter>.

File	Browse	Modify	Search	Reports	Import/Export	Other
------	--------	--------	--------	---------	---------------	-------

Use an existing data base
Build a new data base
Delete an entire data base
Copy an entire data base
Rename an entire data base
About MCLLS
Exit MCLLS

DO YOU WANT TO PROCEED WITH DELETING THE ENTIRE (DESRT) DATA BASE? (Y/N) **Y**

Once deleted, you cannot recover the deleted data base.

Figure 4

6. **Copy an entire data base.** Copying an entire data base is an extremely useful option.. (It is the equivalent of a DOS Copy function). Because in many cases copying may be to a 3½ or 5¼ inch diskette (in the A:\ or B:\ drive), always be certain to pay attention to the size of the data base you want to copy. Your master data base, for example, will be--in most cases--too large to fit on a diskette.

Note: While the data base is copying, MCLLS will provide you with a message that copying is in progress. That, too, is a common feature of MCLLS. If you had chosen the Build a new data base option at the outset, you would have seen windows telling you that MCLLS was making files for the new data base to utilize.

File	Browse	Modify	Search	Reports	Import/Export	Other
------	--------	--------	--------	---------	---------------	-------

Use an existing data base
 Build a new data base

Delete an entire data base
 Copy an entire data base
 Rename an entire data base

Abo
 Exi

Please enter where you want to COPY the MSMAL data base.
 A:\

Current selected list : (20 of 20)
 <F1>-Help | Copy an entire data base

Name of data base : MSMAL

Figure 5

7. **Rename an entire data base.** To Rename a data base does nothing else to it and changes none of the data within it. It is useful if you have made a mistake (such as calling the Team Spirit 92 data base, "TS-93," for example). MCLLS reminds you which data base you are going to rename and asks you to enter the new five (or fewer) character name. MCLLS then asks you to confirm the change to make sure that is what you really want to do. The confirmation window is pre-set to "N" so <Enter> alone will not execute the Rename option. As with other "fail safe" features of MCLLS, this option requires you to change the "N" to a "Y" to rename the data base.

8. **About MCLLS.** This option merely gives you a single screen that tells you the point of contact (after exhausting the available help at your own command) if you have a question or require assistance using the system.

9. **Exit MCLLS.** The final File function is to exit the program. Typically, MCLLS asks you to confirm even that choice of action. You do not have to return to the File function to end a MCLLS session. At almost any point in the program, pressing the <Alt-Q> key combination will bring up a screen asking you to confirm that you want to **Quit MCLLS**. Pressing <Enter> will end the MCLLS session at that point.

CHAPTER 4 - BROWSING LESSONS LEARNED

1. **MCLLS Browse Function.** In previous versions of MCLLS the BROWSE Function was called DISPLAY. Browse permits you to scroll through a data base in a display only manner. It is the safest function to use when familiarizing yourself with MCLLS. Browse permits you to view all aspects of each lesson learned, such as the Administrative Data, the Narratives, the Keywords, etc. In Browse, you activate the various parts of each record with several of the same "hot keys" as in the Modify/Edit and Modify/Add options. This allows you to gain real familiarity with the organization of the data as well as the functioning of the MCLLS software. In fact, using Browse in combination with Searching the data base can make you fairly expert in handling the system without ever taking a chance of corrupting good data.

2. **The Browse administrative data screen.** Unlike the Modify/Edit & Add options, Browse activates both Lessons Learned and RAP administrative data screens automatically. Viewing them at the same time makes it quicker and easier to run through a **current selected list** of records that you have no intention of changing or adding to.

UNCLASSIFIED			
DISPLAY OF MCLLS NUMBER 60557-23038, RECORD NUMBER 00020			
NIGHT LANDING ZONES			
FTX: VU 87-1		Sponsored by: 111 MAP on 06/05/89	
Submitted by:			
ORG: C.O. 111H MAU	POC:	DSN:	Comm:
Subject: OPERATIONS		Lesson? <input type="checkbox"/> Echelon: MCLL	
RAP INFORMATION			
Action by: Action? <input type="checkbox"/> Echelon: MCLL		Interop: NONE	RAP Number: 0005
OPR: MCRADC	POC:	DSN: 278-1234	Comm: (703)640-4321
Solved: 05/30/88		Validate in: KERNEL BLITZ 89-1 on 02/03/90	
Closed: 04/05/90		Active? <input type="checkbox"/> Recommendation:	
Funds: 50,000		Updated: 04/14/93 at 1638 OPR Update: 06/05/89	
<Alt-K>-Keywords <Alt-N>-Narratives <Alt-U>-Unselect <Alt-A>-Select <PgDn>-Next <PgUp>-Last <ESC>-Return			
UNCLASSIFIED			

Figure 6

3. **Browse and the Current Selected List.** Whether you are using BROWSE or any other Main Menu Function, always keep in mind the phrase "**current selected list.**" In MCLLS, the actions you choose to execute are normally on an individual record (the administrative data, narrative paragraphs, and associated keywords of an individual lesson) or an entire group of records. This group is called the **current selected list** and it appears at the bottom left of the Main Menu screen. At the bottom right of the screen, the name of the data base you are about to display is also shown. These messages are visible most of the time in MCLLS.

4. **<Alt-A> and <Alt-U> "Hot Keys" in Browse.** The "hot keys" in Browse are also slightly different. At the bottom of Figure 6, you will see seven of them. The five that are common to the Modify/Edit or /Add options will be discussed in the next part of this manual. Two are unique. Neither **<Alt-A>** nor **<Alt-U>** are shown in the Modify/Edit or /Add hot key window (although they are viable, "hidden" options there just the same). The **<Alt-U>** option provides the ability to remove a particular record from a **current selected list**. This is useful if you have searched a data base to establish a subset of records for a particular area of interest. For instance, it might be all the lessons learned with "HLZ (HELO LDNG ZN)" as a keyword. Then, when you read both of those lessons in detail, you might decide that one of them really does not relate to your current work. Pressing **<Alt-U>** would drop the inappropriate lesson from the **current selected list**. If you change your mind right away, the **<Alt-A>** permits you to **Add** it back to the **current selected list**. The "right away" idea is important because once you go on to another lesson learned in the list, the **<Alt-A>** can not override the **<Alt-U>** because MCLLS does not know which previous record was "UNSELECTed." It should be understood that UNSELECTing only removes from the **current selected list**. It does not alter the UNSELECTed record and it does not delete it, or remove it from the data base.

CHAPTER 5 - UPDATING AND MODIFYING AN EXISTING DATABASE

1. **MCLLS Modify Function.** There are three options under the MCLLS Modify function. The first is to edit, which means to update or change data already in the system. The second is to add new lessons learned to the data base. The third is to remove or delete lessons learned or other information from the data base, such as individual keywords associated with a lesson learned. (The Edit option also permits adding lessons learned to the end of the data base as well as marking lessons or keywords for deletion.) These capabilities will be explained in the appropriate sub-paragraphs that follow.

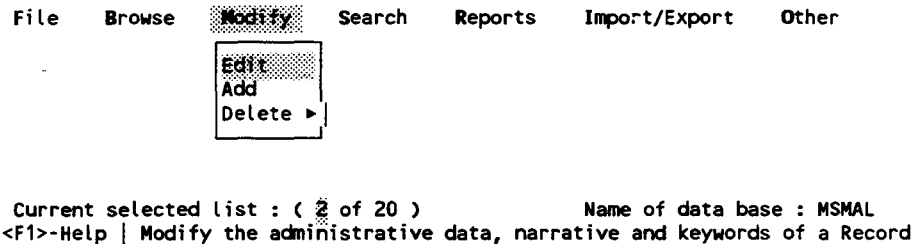


Figure 7

NOTE: The arrowhead ">" symbol shown to the right of the Delete option indicates that option has two or more sub-options and that pressing the <Enter> key when the option is highlighted will result in an additional menu appearing.

2. **The Modify/Edit Option.** Selecting Edit allows you to make changes to records already contained in the data base. Changes include adding information as well as correcting erroneous information in those records. Procedurally, you have to move to the relevant field; the system is then ready for you to begin typing.

NOTE: Because there are several administrative data fields that require information in every lesson learned record, you cannot use a mouse to jump from field to field in the Modify Function.

a. **Administrative data.** Experience has shown that most editing of the administrative data fields will be to enter additional information, so the system "defaults" to the **insert** mode as opposed to the **typeover** mode. If you want to correct an old misspelling, for instance, pressing the <Insert> key would switch you to the **typeover** mode, and pressing the <Insert> key a second time would return to the **insert** "default."

b. **Modifying Lessons Learned Administrative Data.** When the administrative data screen appears, a blinking cursor will be evident at the beginning of the title field.

(1) Pressing either the <Tab> or the <↓> keys will move the cursor ahead to the next field. (The <→> and <←> keys only move the cursor one space ahead or back within a data field.) You can make corrections or additions at whichever data field you choose.

(2) If you want to change one of the entries on the last line of the administrative data screen, pressing the <F8> key at that point will provide a window of acceptable entries. Whenever you see an asterisk (*) beside a MCLLS data field, a complete list from which to select an acceptable entry will pop up. Using the arrow keys, you can move to your chosen entry and press <Enter> to accept your entry.

UNCLASSIFIED

MODIFY MCLLS NUMBER 40431-57683, RECORD NUMBER 00009

TITLE:	A PHIBEX	SYSTEM (PROTOTYPE)
Nickname:	B ADT	
Submitted by:	C CPX	Date: 06/05/86 Sponsor: 24TH MAU
ORG: 24TH MAU	D Day Activity	DSN: - Comm: () -
*Type: F	F FTX	Subject: Lesson? Echelon: MCLLS
	G War Game	
	H Historical	
	I IG Eval	
	M MAA	
	N NIEX	
	O Operation	
	P Post Deployment	
	S Study	
	T Trip Report	
	X CAX	
	Y CAO	
	Z Other	
	1 Disaster	

15/24

<Enter>-Accept <ESC>-Abort

Figure 8

NOTE: The back facing arrowhead in Figure 9 is pointing to the "F" at the "Type" field. It blinks on and off to point out that the active pop-up window is associated with that particular data field.

c. Choosing not to Enter RAP Administrative Data.

Information provided on this screen is normally provided by CG, MCCDC (C391). However, you may find other in-house uses for this screen at your command. When the administrative data screen appears, the bottom half of the screen will be empty. Pressing the <Page Down> key will pop up a window asking you if you want to enter RAP (Remedial Action Program) information. Similarly, pressing either the <Page Down> or the <Enter> key after reaching the ECHELON data field will pop up the same question. MCLLS anticipates that "No" will be the most frequent answer. If you do intend to enter RAP information, you have to change the default of "N" to a "Y" then press <Enter>.

CLASSIFIED

MODIFY MCLLS NUMBER 42154-33174, RECORD NUMBER 00001

TITLE:
SUMMARY - POST EXERCISE REPORT FOR 7TH MEB FEY 1-88 (PART 1)

Nickname: FEY 1-88 Date: 02/26/88 Sponsor: 7TH MEB

Submitted by:

ORG: 7TH MEB POC: DSN: Comm: ()

*Type: # *Classification: U *Subject: 0 Lesson? # Echelon:

Do you want to enter RAP information? N

For fields marked with an '*', press <F8> for a list of acceptable values.
Make changes and press <PgDn>

UNCLASSIFIED

Figure 9

d. Modifying the Contents of Existing Lessons Learned.

After modifying administrative data or choosing to by-pass those fields, pressing the <Enter> key when the "N" is visible (as shown in Figure 8) will bring up a "Hot key" window at the bottom of the screen for you to modify the remaining contents of the lesson learned. The "Hot key" window is a listing of the keys that are active for this screen. From this window you can modify keywords, narrative descriptions, add a new lesson learned, mark this lesson learned for deletion, move to the next lesson learned, moved to the previous lesson learned, return to the menu or return to the administrative data screen.

UNCLASSIFIED

<Alt-K>-Keywords <Alt-N>-Narratives <Ins>-add MCLL -mark for deletion
<PgDn>-Next <PgUp>-Last <ESC>-Return <Tab>-Edit Admin Data

Figure 10

e. **Modifying Keywords.** Pressing the <Alt-K> keys will bring up the list of keywords associated with the current lesson learned. MCLLS then provides you with additional hot keys giving you more options. Essentially your choices are to remove keywords previously assigned to that lesson learned, or to assign additional keywords to that lesson learned. In effect, that is what you are doing when you change all the "II MAF" keywords to "II MEF", if you change "LVT" keywords to "AAV" keywords, or when you change "RTL-7" to "RLT-7".

(1) If you wish to remove a particular keyword from the list, simply MARK it by pressing the <Delete> key when the highlight bar is over that keyword. An asterisk appears to the right of that keyword and it remains "MARKed" until you actually delete it or remove the mark. "UnMARKing" can be done by pressing the <Delete> key a second time when the asterisk that marks the keyword is highlighted, or by pressing the <Esc> key and backing up without saving. (The deletion process is completed in the Modify/Delete option explained later in this chapter.) Then press the <Enter> key to confirm that you wish to remove the MARKed keyword(s) from the list. Note at Figure 11 that MCLLS will show that the highlighted keyword is MARKed and also indicate which keyword of the total number associated with that lesson learned that it is. Both of these messages are at the bottom of the window.

UNCLASSIFIED

MODIFY MCLLS NUMBER 42154-33174, RECORD NUMBER 00001

TITLE:	Keyword or Phrase	Marked	
SUMMARY - PDS	COMMEX (COMM EXERCISE)		7 MEB
Nickname: FEX	COMMUNICATIONS		() -
Submitted by:	COMMUNICATIONS EQUIP		
ORG: 7TH MEB	CONTROL GROUP		
*Type: F *CL	CSSE (CBT SERV SPT ELM)		
	DEPLOYMENT		
	DESERT	*	
	EQUIPMENT		
	FORCE ON FORCE		

<Mark>
Record 17/77

 - Toggle marking for deletion
<Ins> - Insert new record

<Alt T> - enable Keyword Template
<Alt L> - enable Keyword List

<Enter> - Accept
<Esc> - Abort

Figure 11

(2) If you wish to assign an additional keyword, press the <Insert> key and a highlight bar will appear at the end of the keyword list. At that point, pressing the <Alt-T> will pop-up the Marine Corps Automated Keywording System (MCAKS) keyword Template (see Appendix F) or pressing the <Alt-L> will pop-up an alphabetical listing of the most common keywords. (Many of the same keywords are in both lists. The Template organizes them according to functional area responsibility; the List is alphabetical.) Choose from either the Template or the List by the same process, that is, moving the highlight bar to the desired keyword, then pressing the <Space bar> to select the keyword. After you have selected all of the keywords you want to add from the Template or the List, press <Enter> twice to accept them and then to save them. If the keyword you wish to assign is not included in either the Template or the alphabetical List, you may type your chosen keyword in that same highlighted field at the end of the currently active keywords.

UNCLASSIFIED

 MODIFY MCLLS NUMBER 42154-33174, RECORD NUMBER 00001

TITLE:	Keyword or Phrase	Marked	
SUMMARY POS			«
Nickname: FEX	USMC TRAINING		* MEB
Submitted by:	USN (US NAVY)		() -
ORG: 7TH MEB	AIR TRAFFIC CONTROL		
	COMBAT SERVICE SUPPORT		
*Type: F *CL	MPF (MARITIME PREPOS FOR)		
	VEHICLE TYPE		
	7TH MARINE REGIMENT		
	NEW KEYWORD GOES HERE		»

Record 77/77 ▼

 - Toggle marking for deletion <Ins> - Insert new record
 <Alt T> - enable Keyword Template <Alt L> - enable Keyword List
 <Enter> - Accept <Esc> - Abort

Figure 12

Note: There are nine phrases included in the Template that are "marked" by three asterisks before and after the phrase. Those phrases are counted in the 222 total Template keywords even though they are NOT keywords and are included only to give the Template proper organization.

f. **Modifying Narratives.** If you press the <Alt-N> key combination to indicate a desire to Modify/Edit the narrative text paragraphs of your lessons learned, MCLLS "jumps" you to a screen showing paragraphs 5 through 12 of an Summary MCLL or paragraphs 5 through 9 of an individual MCLL of the "MCLLS Long Report" format. (Remember, paragraphs 1 and 2 are administrative data, keywords are in paragraph 3, and paragraph 4 is the title of the lesson learned.) In addition, the window is not very large, and only a small portion of the entire narrative shows at

any given time. The lines "roll up" to enable you to get from the start to the finish. Note the <Insert> at the bottom right of the window. To change to **typeover** simply press the <Insert> key for editing in that mode.

UNCLASSIFIED

MODIFY MCLLS NUMBER 60557-23038, RECORD NUMBER 00020

TITLE:
NIGHT LANDING ZONES

Line: 1 Col: 0 Size: 1050 Bytes Narrative

Nickn 5. (U) OBSERVATION: At least three mishaps in the last year
Submi occurred while landing three or more aircraft in zones at night,
ORG: two of which involved dusty zones.

*Typ 6. (U) DISCUSSION: In each case, glide angle indicator lights
(GAIL) were used, though intended landing points were not
lighted. One helicopter landing zone (HLZ), used for the
Valiant Usher (VU) night heliborne assault, was large enough to
accommodate 3-4 aircraft, however, only sections of two were
landed simultaneously due to the fact that surface soil was
loose and it was a night landing.

7. (U) LESSON LEARNED: Not stated in original after action
report.

8. (U) RECOMMENDED ACTION: For night landing zones, no more
than two aircraft land in the same zone at the same time, unless

<Insert>

<Alt-S>-Save <Ctrl-W>-Save & Exit <F5>-Spell Check <F7>-Text Search

Figure 13

(1) Pressing the <Alt-S> key combination at any point is helpful if you are making a lot of changes to a long narrative. That way, you can save the changes without leaving the narrative you are editing. Whenever you finish with any particular lesson learned, pressing the <Ctrl-W> will both save your work, and return you to the hot key screen.

(2) To check the spelling of your work, and provided that the spell checker component is installed, the <F5> key will check each word from the location of the cursor to the end of the present narrative. Similarly, if you choose to employ the text (string) search, pressing the <F7> key will do that for you beginning at the location of the cursor and going through to the end of the narrative. If you want to employ either of those features, you should be at the beginning of the narrative. One thing to remember about the spell check feature is that it will

It know if you have misused a word, only that you have spelled something in a way it does not recognize. Accordingly, if you wrote include when you meant exclude the checker will not catch it. Similarly, if you wrote "their" in place of "they're" the system will not highlight the error.

NOTE: Pressing <Shift-F7> will repeat the last in-narrative text search, and <Ctrl-F7> will "toggle" upper and lower case sensitivity.

NOTE 2: After modifying the narrative of a MCLL and when you return to the MCLLS Main Menu, the program will pack the narratives automatically. Packing gets rid of duplicate copies of narratives and saves electronic storage space on your disk.

3. **Adding a Lesson Learned in the Modify/Edit Option.** At the same administrative data screen shown at Figure 10, pressing the <Insert> key will permit you to add a new lesson learned to the end of the current data base. The screen will first ask you if it is a Summary MCLL, and the expected answer is "No." For simplicity's sake we shall discuss the expected answer because only the format changes between the two types of a MCLL.

a. In Figure 14 you will see that the new Record Number will be at the end of the current data base, and that certain administrative data will be carried forward to the new record. Importantly, MCLLS will have already assigned a MCLLS NUMBER to the new lesson learned. Next, you should see that the CLASSIFICATION is not carried forward. Whether or not a lesson learned is classified is totally dependent on the contents of that lesson learned alone. MCLLS does assume, however, that the same exercise and the same units, etc. should be carried forward. When the screen at Figure 14 appears, all you have to do is begin to enter the necessary information.

NO CLASSIFICATION	
MODIFY MCLLS NUMBER 41651-36445, RECORD NUMBER 00021	
TITLE: Each Lesson Learned Also Has a Distinct Descriptive Title	
Nickname: VU 87-1	Date: 06/05/89 Sponsor: III MAF
Submitted by:	
ORG: C.D. 11TH MAU	POC: DSN: Comm: ()
*Type: F	*Classification: *Subject: Lesson? F Echelon: MCCDC (WF)
For fields marked with an '**', press <F8> for a list of acceptable values. Make changes and press <PgDn>	
NO CLASSIFICATION	

Figure 14

b. After completing the administrative data entry, pressing the <Page Down> key twice and pressing the <Alt-N> key will take you to the appropriate individual item lesson learned format for the narrative. After you finish entering the text, pressing <Ctrl-W> will complete the action and return you to the Hot Keys shown at Figure 10 all over again.

UNCLASSIFIED
MODIFY MCLLS NUMBER 41851-36445, RECORD NUMBER 00021

TITLE:

Line: 16
Col: 40
Approx. Size: 725 Bytes
Narrative

Nickn

5. (U) OBSERVATION: This is the User Manual example.

Submi

6. (U) DISCUSSION: It shows the format for the individual Item Lesson Learned narrative text portion.

*Typ

7. (U) LESSON LEARNED: The Marine entering the text has got to make sure that each of the question marks is replaced by the correct classification. The MCLLS programming language will not let a pop-up window provide a list in this kind of a data field (which is called a memo field).

8. (U) RECOMMENDED ACTION: Do not forget to make a classification assignment to each paragraph in the lesson learned. If you use the MIP, however, it is written in a different language and the pop-up window does work in the narrative text fields.

<Insert>

<Alt-S>-Save
<Cntl-W>-Save & Exit
<F5>-Spell Check
<F7>-Text Search

Figure 15

4. Marking a Lesson Learned for Deletion in the Modify/Edit Option. Because (for instructional purposes), Figures 14 and 15 indicate that a new MCLL (Record #21) has been added to the data base, it will be convenient to use that MCLL to demonstrate the MARKing for deletion feature of MCLLS. Pressing the key from the same Hot Key window as shown at Figure 10 will result in the appearance of a flashing message at the top and bottom left of the MCLLS screen. The message says simply, "Marked for Deletion." Until you either DELETE the record or UNMARK it, the message will remain flashing at the top left. (The one at the bottom may disappear depending on what additional screen you activate.) Remember, MARKing the record will not DELETE it. DELETing it requires additional action on your part.

5. Jumping to the Next Record and Returning to the Previous Record. When the <Page Down> and the <Page Up> Hot Keys are visible, pressing one of them will either move you ahead or back one lesson learned in the **current selected list**. Pressing either

of those keys on the alternate screens, remember, anticipates your modifying data in that lesson learned and pops-up the window asking if you wish to change RAP data. Pressing <Page Up> at the first record or <Page Down> at the last, will return you to the Modify/Edit main menu screen. The <Esc> key will return to the menu screen whether or not the Hot Key message says so. The <Tab> will either move you ahead one field when there is no Hot Key message on the screen, or take you back to the Title field awaiting your action to Edit the record when that message is visible.

6. **The Modify/Add Option.** This option is normally the one to use when adding a complete after action report, or any other series of "original" lessons learned to your data base. Just as in the Modify/Edit/Add process, MCLLS will jump to the end of the data base, bring up a window asking you if you want to add a SUMMARY MCLL, and show you the administrative data that is routinely carried forward from one lesson learned to another.

NO CLASSIFICATION			
MODIFY MCLLS NUMBER 41651-36445		RECORD NUMBER 00021	
TITLE:			
SUMMARY - INSTRUCTIONAL PURPOSES ONLY			
Nickname:	VU 87-1	Date:	06/05/89 Sponsor: III MAF
Submitted by:			
ORG:	C.O. 11TH MAU	POC:	DSN: - Comm: ()
*Type:	F	*Classification:	*Subject:
Lesson?	T	Echelon:	MCCDC (WF)
<Alt-K>-Keywords <Alt-N>-Narratives <Ins>-add MCLL -mark for deletion <PgDn>-Next <PgUp>-Last <ESC>-Return <Tab>-Edit Admin Data			

Figure 16

a. If you answered "Y" to whether or not you were adding a SUMMARY MCLL, you will see "SUMMARY" (along with a hyphen) show up in the Title field. The administrative data screen will otherwise look exactly like the screens for the Modify/Edit procedures. The narrative data screens will show a different format, however, and MCLLS will not ask you if you want to enter RAP data if you are ADDING a SUMMARY MCLL.

NO CLASSIFICATION			
MODIFY MCLLS NUMBER 41651-36445, RECORD NUMBER 00021			
TITLE:			
SUMMARY - INSTRUCTIONAL PURPOSES ONLY			
Line: 1	Col: 0	Size: 236 Bytes	Narrative
Nickn	5. (?) GENERAL DESCRIPTION: The information that goes here is explained in Appendix F		
Submi			
ORG:	6. (?) DATES: Also note, that the same CLASSIFICATION entries are required as the INDIVIDUAL lesson learned requires.		
*Typ	7. (?) LOCATION OF OPERATIONS: As pointed out at Appendix F, (F) in an exercise, this is the location being simulated.		
	8. (?) LOCATION OF PERSONNEL: Again, for an exercise, this may be different from the LOCATION OF OPERATIONS.		
	9. (?) OBJECTIVES: Training objectives will be included in either the EXPLAN or the Letter of Instruction, or both.		
	10. (?) LIMITATIONS: Peacetime air space restrictions are often a limiting factor in training exercises. So are artificialities.		
	11. (?) MAJOR PARTICIPANTS: In MCLLS, the four MAGTF components are normally listed as a minimum.		
	12. (?) COMMANDERS COMMENTS: The commander adds whatever comment		
			<Insert>
<Alt-S>-Save <Cntl-W>-Save & Exit <F5>-Spell Check <F7>-Text Search			

Figure 17

b. The Hot Keys described in the preceeding pages and paragraphs explaining the Modify/Edit options are identical in the Modify/Add option. What is otherwise very slightly different is that in Adding administrative data to those fields marked with an asterisk (the bottom line), pressing the <Enter> key to accept the previous data field entry will pop up a window of acceptable entries automatically.

NO CLASSIFICATION																			
MODIFY MCLLS NUMBER 41651-36445, RECORD NUMBER 00021																			
TITLE:																			
SUMMARY - INSTRUCTIONAL PURPOSES ONLY																			
Nickname:	VU 87-1	Date:	06/05/89 Sponsor: III MAF																
Submitted by:																			
ORG:	C.O. 11TH MAU	POC:	DSN: - Comm: () -																
*Type:	*Classification:	*Subject:	Lesson? I Echelon: MCCDC (WF)																
<table border="1"> <tr><td>U</td><td>UNCLASSIFIED</td></tr> <tr><td>C</td><td>CONFIDENTIAL</td></tr> <tr><td>S</td><td>SECRET</td></tr> <tr><td>T</td><td>TOP SECRET</td></tr> <tr><td>N</td><td>SECRET NOFORN</td></tr> <tr><td>1</td><td>CONFIDENTIAL/SPECAT</td></tr> <tr><td>2</td><td>SECRET/SPECAT</td></tr> <tr><td>3</td><td>TOP SECRET/SPECAT</td></tr> </table>				U	UNCLASSIFIED	C	CONFIDENTIAL	S	SECRET	T	TOP SECRET	N	SECRET NOFORN	1	CONFIDENTIAL/SPECAT	2	SECRET/SPECAT	3	TOP SECRET/SPECAT
U	UNCLASSIFIED																		
C	CONFIDENTIAL																		
S	SECRET																		
T	TOP SECRET																		
N	SECRET NOFORN																		
1	CONFIDENTIAL/SPECAT																		
2	SECRET/SPECAT																		
3	TOP SECRET/SPECAT																		
<Enter>-Accept <ESC>-Abort																			

Figure 18

c. A Final Note on Modify/Add. Although this black and white manual cannot replicate changes in screen color, when you do enter a classified record the NO CLASSIFICATION message at the top and bottom of the screen changes to the appropriate classification and the data field has a noticeable change in background color. Further, the colors for UNCLASSIFIED, CONFIDENTIAL, SECRET, and TOP SECRET are each distinct. The background color for CONFIDENTIAL is a light green, for example, and for SECRET it is bright red. Please note that this discussion applies to the classification administrative data field; it does not automatically take care of classifying the paragraphs and sub-paragraphs in the narrative text field entries, and MCLLS does not change background color in those narrative fields, either. Ensuring that each paragraph that needs a classification has the proper one entered is the responsibility of the person entering the MCLL.

7. **The Modify/Delete Option.** This option enables you to get rid of records or parts of records (such as keywords) that no longer belong in your MCLLS data base. It is also the option for "cleaning up" your data base. This "cleaning up" is a necessity from time-to-time if you do much editing. As noted earlier, the right arrowhead indicates a sub-menu. By pressing the <Enter> key with the Modify/Delete option highlighted, a menu of four additional choices is presented on the screen.

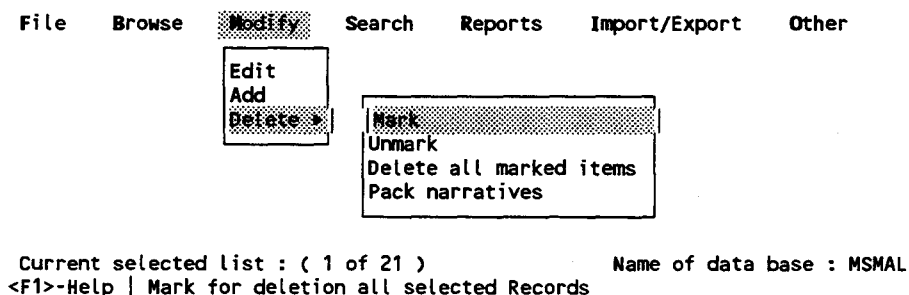


Figure 19

a. **Modify/Delete/Mark.** The first choice on the sub-menu is to MARK what you intend to delete. MCLLS makes this option a multi-step procedure. The simple reason for that is because once data is deleted it is gone for good. Accordingly, MCLLS requires you to MARK what you intend to delete as a separate preliminary step to any actual deletion.

(1) MCLLS will remember what you have MARKed, however, and the records, milestones, or keywords you MARK remain MARKed until you either UNMARK or actually DELETE them. That capability demonstrates the importance of the Search function, and the importance of conducting a proper search. (Search is discussed in the next section.)

(2) It is also important to remember that MCLLS will MARK everything in the **current selected list**. Because MCLLS remembers what you have MARKed for deletion from session to session, remedies are built in to help you avoid deletion errors.

b. **Modify/Delete/Unmark.** UNMARKing is a simple action that can be done repeatedly with no adverse effects whatsoever. It is well for you to remember, however, that you are UNMARKing only within the **current selected list**. If you MARKed an entire data base on Tuesday, for example, and then on Friday narrowed to only numbers 19 and 20 before choosing to UNMARK, you would UNMARK only numbers 19 and 20.

c. **Delete Marked Items.** This option will remove the data you have marked for deletion from your data base. It will be gone and unrecoverable. For that reason, pressing the <Enter> key at this option presents you with a window that shows you what is MARKed for deletion. When you confirm that you intend to delete what is shown in the window by pressing the <Esc> key, MCLLS again asks you if you really do intend to delete. The "default" answer is that you do NOT want to delete, and you must change the **N** to a **Y** before pressing the <Enter> key to complete the deletion. Note also that MCLLS reminds you of the permanence of deleting data with that message conspicuously centered at the bottom of the screen. When you insert the "Y" and press <Enter>, MCLLS also tells you that it is reindexing and packing. These are automatic actions that help to "clean up" your data base whenever you choose to delete data.

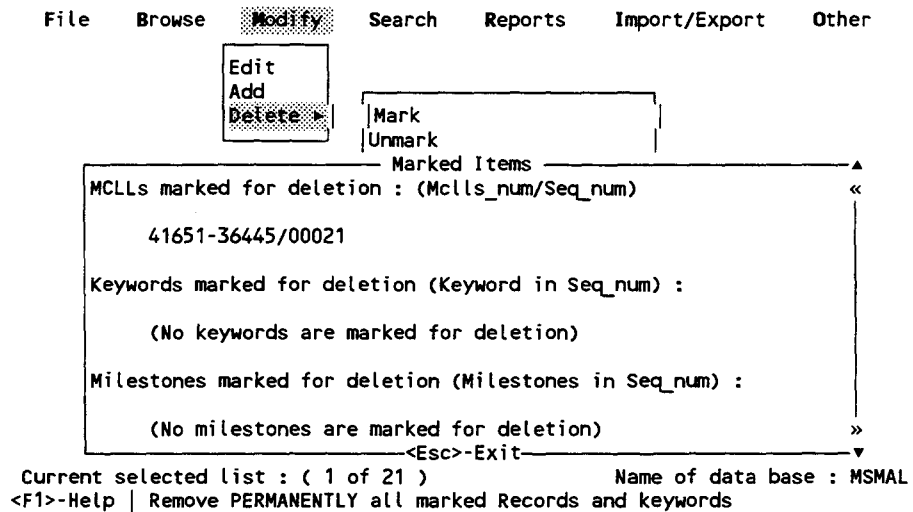


Figure 20

d. **Pack Narratives.** The larger your data base and the more often you edit your narratives, the more important it is to PACK the narratives. PACKing is necessary because MCLLS is written in a compiler that makes an entirely new narrative every time an existing one is edited. It then points to the most recently edited narrative as the "active" one, at the same time that there may be a half dozen previous "copies" of that lesson learned narrative elsewhere in the data base. In some cases, PACKing can reduce the amount of disk space that the data base uses very significantly. Even though MCLLS PACKs automatically when you Modify narratives, the option is important enough to be left on the menu for you to implement.

CHAPTER 6 - SEARCHING THE DATABASE

1. **MCLLS Search Function.** The Search capability is the key to exploiting the characteristics of a computerized data base. Indeed, MCLLS permits you to search through literally thousands of "pages" of information almost instantaneously and with great accuracy. This is done with the Search Function in which you specify that you want access to only those records meeting criteria of interest to you at any given moment. Virtually everything you do with MCLLS requires that you first establish the proper current selected list.

The Current Selected List. The **current selected list** is probably the most important concept that you need to understand in order to use MCLLS effectively. When you select Use an existing data base immediately upon bringing MCLLS up on your computer, that entire data base is the **current selected list**. You must be able to set specific criteria to reduce the size of such a data base for effective work to get done. You need to set, or establish, the **current selected list** to coincide with only those records in which you have immediate interest. MCLLS not only provides you with powerful search capabilities, it also permits you to combine search criteria in a variety of ways to make your searching both rapid and accurate. For convenience, we call one group of capabilities search METHODS, and another the search TYPES.

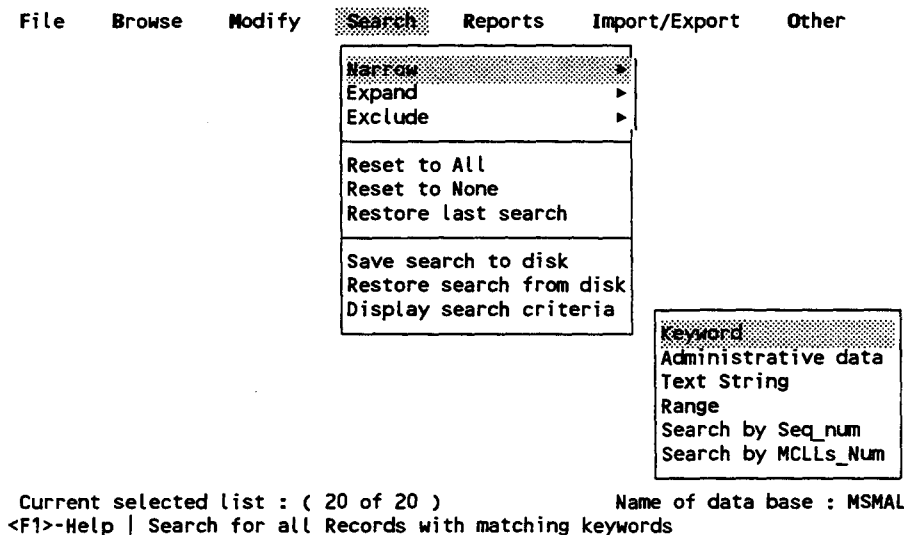


Figure 21

2. **The Three Search Methods.** As indicated immediately above, the choice of the word "method" is not a functionally required choice. It is made because MCLLS permits users to combine one of three kinds of searching with one of six other ways to search at

the same time. You can, in addition, combine several searches sequentially, with each iteration providing a new **current selected list** with which to work. The six "types" of search do not change when you change the "method" of searching; they remain constant whether you NARROW, EXPAND, or EXCLUDE the list.

a. **Narrow the Current Selected List.** Each time that you NARROW the **current selected list**, you are using logic that combines two or more specified criteria to form a new, NARROWer list. Even if you begin with the entire data base and give your search only one criterion, you have NARROWed the data base from the whole data base to a subset of it. To NARROW is to demand that each record in the new **current selected list** meet criterion A and criterion B and criterion C, etc. Logically, it is possible the new list could be exactly the same size as the former one; it could not be larger.

b. **Expand the Current Selected List.** In each iteration of EXPANDING the **current selected list** you are giving the computer "OR" logic with which to work. Obviously, you cannot begin an EXPAND action if your **current selected list** is already the entire data base. Provided that all records require one criterion to be either "A", "B", "C", or "D", you could EXPAND the **current selected list** to include all those records containing criterion A, OR criterion B, OR criterion C. EXPAND is a useful method for people who like to build a **current selected list** from NONE or from some BASELINE requirement such as beginning with all the records that have MAGTF as a keyword.

c. **Exclude from the Current Selected List.** This method of searching is based on an "AND NOT" treatment of the **current selected list**. The method, in effect, searches by telling the system that the user wants all the records that are NOT associated with some criterion, such as "D". Including all records that are "A" or "B" or "C" would give the exact same result as excluding all records that are "D". To exclude is useful, for example, if you wish to investigate all the "desert warfare" lessons learned from training exercises, but not those for Operations DESERT SHIELD and DESERT STORM.

3. **The Six Search Utilities.** Again, there is nothing to require the use of the word, "utilities." At the same time, several of them are much like computer program "utilities" in general.

a. **The First Three Search Function "Utilities".** The six options beneath the NARROW, EXPAND, and EXCLUDE choices are mostly self-explanatory. Reset to All, for example, resets the **current selected list** to 100 per cent of the records in the current data base. Reset to none does exactly the opposite. Restore last search is particularly useful if you know you have made an error of choice, e.g., EXCLUDING records with the keyword

INTELLIGENCE instead of EXPANDING to include them; it is equally helpful if the result of the most recent search is unexpected and unwanted and you wish to back up one search to try another criterion.

Reset to All Reset to None Restore last search
--

Figure 22

b. **The Second Three Search Function "Utilities".** To Save search to disk is simply to "set aside" the records of your **current selected list**. It is particularly useful if you must establish the same search criteria frequently, or if any particular search is a long or a difficult one to remember. To be valuable to you, the new **current selected list** should be one that you anticipate you will need to use again. To Restore search from disk is the inverse action of saving one to disk.

(1) In both Saving and Restoring searches, MCLLS has default names for the files which will be the name of the current data base with a suffix ".SAV". Accordingly, if you want to save more than one "permanent" search, you should give them similar names rather than permitting MCLLS to assign the default name, in effect writing over previous ".SAV" files and retaining only the very most recent. You might have one "MSMAL.SAV" file, for example, and one "MSMLX.SAV" file. When you choose to Restore search from disk, MCLLS asks you to make a choice of what you wish to do with that search as a next step.

(2) The second screen that follows asks you to select the saved file that you want to restore. Pressing the <Enter> key at the Display search criteria will pop up a window listing the criteria for both the method and the type of the current search.

Save search to disk	
Restore search from disk	
Display search criteria	

Narrow	▶			
E	▶			
E	▶			
<table border="1"> <tr> <td>MSHEL.SAV</td> </tr> <tr> <td>MSML0.SAV</td> </tr> <tr> <td>MSMAL.SAV</td> </tr> </table>		MSHEL.SAV	MSML0.SAV	MSMAL.SAV
MSHEL.SAV				
MSML0.SAV				
MSMAL.SAV				
R				
R				

RESTORE SEARCH FUNCTION

Enter the name of file to use.

C:\MCLLS\MSMAL.SAV

Press <F4> for a directory of files.

Current selected list : (2 of 20) Name of data base : MSMAL
 <Enter>-Accept <ESC>-Abort

Figure 23

4. **The Six "Types" of Searches.** The second-level search menu lists these six options, and you should note that they are identical whether the menu is activated from the NARROW, EXPAND, or EXCLUDE "methods" in the primary Search menu.

Keyword
Administrative data
Text String
Range
Search by Seq_num
Search by MCLLS_Num

Figure 24

a. **The Keyword Search.** There are several reasons why KEYWORDing is the first option on the menu. First, KEYWORDS are logical "pointers" to narrative subject matter. Second, they are of sufficient importance that an artificially intelligent sub-system (MCAKS) has been developed to make KEYWORDing accurate and consistent. MCAKS is used to keyword all lessons learned in the master data base Marines receive from MCCDC (see Appendix E for a listing of MCAKS generated keywords). Third, MCLLS stores KEYWORDS in a separate, indexed file that makes searching with KEYWORDS extremely fast.

(1) The Importance of Consistency in Keywording.

Experienced Marines will choose at least slightly differing KEYWORDS from each other whenever asked to assign KEYWORDS to the same lesson learned narrative. Moreover, the same "expert" occasionally will choose different KEYWORDS for the same lesson learned on different days, or when assigned to a different organization that has a different daily emphasis than that person's previous organization. (It should not be difficult to imagine a different daily "mindset" in the same Marine when the workplace is the Pentagon or recruiting duty in Chicago as opposed to the Fleet Marine Force.) A "computer system" such as MCAKS certainly lacks many of the best qualities of human expertise, but it is indeed more consistent than human beings. Moreover, the system will always spell a KEYWORD exactly as it is designed to do. In dealing with military jargon, acronyms, weapons systems, tactics, etc., that spelling consistency is every bit as important as consistency in the substance of KEYWORDing.

(2) How a Computer "thinks" regarding spelling. First of all, computers deal in absolutes. Everything within them is arranged by a series of ones and zeros, electrical charges that are either "on" or "off". For that reason, computers see an exact match or no match at all.

(a) In MCLLS, keywords are limited to 25 characters. That limit prevents the use of many full names such as, "SECOND MARINE AIRCRAFT WING," or "1ST MARINE EXPEDITIONARY BRIGADE," or all sorts of tactical phrases, weapons, or names of other equipment. Each must be abbreviated (or truncated) in exactly the same way for the computer to be an efficient tool in finding it again.

(b) Accordingly, the efficient way to exploit the power of a computer is to program it to find and read all the acceptable variations of a "keyword" that it finds in "free" text, then assign it a standard spelling in the indexed (keyword) file that is used to sort the data base. (Which is part of what MCAKS does.) To go along with that, MCLLS is programmed to show users exactly how MCLLS spells common keywords by incorporating pop-up choices for them to select alphabetically or in accordance with functional area.

KEYWORD SEARCH (NARROW)

CONDITION	KEYWORD
NARROW	DECEPTION OPERATIONS
NARROW	
NARROW	
NARROW	
NARROW	
NARROW	

USMC TRAINING
INDIVIDUAL TRAINING
UNIT TRAINING
MOBILIZATION
OMCR (ORG USMC RES)
IRR (INDIVID RDY RESERVE)
DEPLOYMENT
CONUS
ALERT FORCES
UDP (UNIT DEPL PROGRAM)
AIRLIFT
SEALIFT
PHIB SHIPPING
MPS (MARITIME PREPOS SHP)
LOGISTICS
ENGINEER SUPPORT
SEABEES
FACILITIES
HNS (HOST NATION SUPPORT)

158/222

<Enter>-Accept <ESC>-Abort

Figure 25

(c) At Figure 25 is a sample of the keyword template that is built into MCLLS. It was activated by pressing <Alt-T> from the same Hot Key choices as were shown throughout the discussion on Modify. Clearly, the MCAKS truncation of MPS (MARITIME PREPOS SHP) could have a large number of variants. By building one variant into MCLLS the system permits you to select the "accepted" one. Later, when you search, doing it with the same template guarantees accurate retrieval of all lessons learned with MPS as one central idea to the narrative. If you had pressed <Alt-L> for the keyword List, you would have found "MPS (MARITIME PREPOS SHP)" in alphabetical order. If your desired keyword is not included in either the Template or the List, a printed list of over 2650 MCAKS recognized keywords is at Appendix E.

(d) **The Importance of Indexing the Keyword File.** To the computer, KEYWORDS really are nothing more than "pre-processed text strings." As such, they can be treated in a distinct manner from words we have not "pre-processed". In MCLLS, these KEYWORDS are assigned to their own file (which contains a "pointer" back to the appropriate narrative record), and then they are indexed. Indexing puts them in order so that MCLLS can go to that file and find them instantly. If the

KEYWORDS were not pre-defined and stored in their own indexed file, the only way to provide this sort of search would be to index every word in every narrative. That would also require that the ability to Modify MCLLS be eliminated, an alternative that is not always acceptable. Accordingly, the KEYWORD search is the best option to create a **current selected list** that matches the subject matter of interest to you at any given time. Nonetheless, the KEYWORD search alone is not likely to answer the mail very often. Normally, it will be used in conjunction with other search criteria.

NOTE: Since the Master MCLLS data base is on CD-ROM and cannot be modified, each (meaningful) word is indexed. In spite of that, the Keyword Template is still a very useful organizational tool for your searching of a CD-ROM data base of MCLLS.

b. **The Administrative Data Search.** In a single search you can apply the whole range of administrative data categories, or, as is most likely the case, just one or two. You will probably want to search by some administrative data fields a lot more than by others. It does not seem likely, for example, that you would attempt to search for a lesson learned by "Title" unless you were working with a printed Title Report in hand.

(1) It is extremely common, however, to search for all the lessons learned from a previous exercise in the same series as that in which you are about to participate. It is equally common to want to inventory lessons learned from a standpoint of TYPE (of training exercise) or SUBJECT because your responsibilities require you to keep track of intelligence issues that are reported from joint exercises and compare them with all intelligence issues that are reported from Marine field exercises.

(2) Figure 26 shows such an administrative data search being made using the three data fields that respond to the <F8> key with a fixed, pop-up list. The user could just as easily have entered COBRA GOLD or OCEAN VENTURE in the exercise Nickname field.

MCLLS ADMINISTRATIVE DATA SEARCH (NARROW)

*Classification = Title =

Interoperability = Lesson? = Echelon of lesson =

*Type = Sponsor = Nickname =

*Subject = Submitting ORG = Marked for Deletion?

Action? = RAP numbers =

Echelon of action =

After = Observed Clos Updated Updated

Before = 04/27/93 04/27 27/93 04/27/93

Validate =

A ADMINISTRATION

C COMMUNICATIONS

D DEPLOYMENT

I INTELLIGENCE

L LOGISTICS

M MOBILIZATION

O OPERATIONS

2 COMMAND AND CONTROL

3 DOCTRINE

NO SUBJECT CODE

<Enter>-Accept <ESC>-Abort

Figure 26

(3) Administrative data searches can combine one acceptable entry from each different data field in a single search; they cannot search for multiple choices within each field in a single search. If, for example, you wanted to select all the (Type) CPX and FTX lessons learned from Cobra Gold, you would have to make two separate searches.

(4) After your search criteria are entered, MCLLS asks you whether or not your search must be for TYPE = FTX (for example) and SUBJECT = INTELLIGENCE both in the same record (Option 1), or searching for all records that meet either criterion (Option 2).

ADMINISTRATIVE DATA SEARCH (NARROW)

*Clas 1. Find ALL of the search strings in the SAME record. (AND)

*Inte 2. Find any of the search strings in any record. (OR)

Figure 27

c. **The Text String Search.** A text string search is a search for several sequential characters within a narrative. It is an extremely useful and helpful technique to access those records of immediate interest.

(1) Many occasional users of MCLLS tend to want to use this technique far too soon in the SEARCH process, and you may

find yourself having to explain to them why they should not. As an example, think of a data base with thousands of records and the boss, thinking of Maritime Prepositioning, says, "Find me all the lessons learned about MPS." MCLLS will do that in a text string search, but will take "forever" doing it because it will read every narrative looking for those three letters in that exact sequence. MPS, however, is fairly unique. (Just the same, you might get a lesson learned about MCCRES and Mission Performance Standards (MPS)).

(2) How about CAS? Substitute "CAS" for "MPS" in the above statement and your search would not only be painfully slow, it would also certainly be inaccurate. If you meant to find all lessons concerning the Crisis Action System, you probably would, but you would also find all of them having to do with Close Air Support, Combat Air Speed, Combat Ammunition System, and Cost Accounting Standards. In addition, you'd get all the records including the word "CASualty" as well as the ocCASional use of numerous inconsequential words.

(a) The Most Efficient Use of the Text String Search.

For the sake of consistency with numbers, presume that you had narrowed a data base of 5,000 lessons learned to a **current selected list** of only 500 by a combination of FTX (Type) and COBRA GOLD (Nickname) from the administrative data fields, then further narrowed to only 20 records by keyword searches for tactical mobility and maintenance, but your real interest is narrower yet. You want to prevent deadline time of rolling stock in the next COBRA GOLD. At this point it may make sense to you to search by (air or fuel) "filter", or take another approach and search on "contamination," "contaminated," or "contaminants." In a text string, the experienced user would probably search on "contamina" and get each variant of "contaminate" with the single effort. The manual has already talked about how to "spell" unit designations. Does equipment always get written with a hyphen? If so, where? How about M1A2, M1 A2, M-1A2? Importantly, when looking for the M1A2 try ORing the several variations of acceptable use. The AAV used to be called the LVT. Try text string searching for AAV OR LVT after you have reduced the **current selected list** to a manageable volume of narratives.

(b) Leading and Trailing Blanks, Spaces and

Underscore Characters. In a text string search, what follows the text string that you specify does not matter unless you end your text string with the "_", the underscore character. In that case, your string must end with the final letter you type, and be followed by a blank space. Similarly, if you open or begin the text string with the underscore character, you are insisting that there be a space immediately before your chosen text string. You would not have "casualty" returned as a "CAS" induced keyword if

SPECIFIC SEARCH (NARROW)

Seq No	MCLLS No	RAP No	Selected
00001	31744-43005		
00002	31740-31443		
00003	31740-32294		
00004	31740-57071		
00005	31744-95409		
00006	31745-33440		
00007	31740-04293		
00016	31743-58425		

Record 1/20

<Space bar>-Toggle selection

<Enter>-Accept

<ESC>-Exit

Figure 29

f. **Searching by a MCLLS Number.** Unlike the Sequence Number which is a temporary identifier, the MCLLS number is permanent. It is associated with a specific lesson learned until that lesson is terminated from the data base. Accordingly, and because the number itself has no particular sensitivity let alone security considerations, searching by a MCLLS number may be a more common undertaking than you might expect. Whenever you define a small (or moderate) **current selected list** of lessons learned that you want to bring to the attention of a higher, adjacent, or subordinate command, you can effect this search and MCLLS provides you with a sequential listing of the appropriate MCLLS numbers. All you then need to do is communicate the MCLLS numbers and the other command can replicate your **current selected list**. The quickest SECURE way to get the appropriate MCLL or MCLLS in your counterpart's hand is by reference to the MCLL number. Remember, just as in searching by a Sequence Number, if you NARROW or EXCLUDE, MCLLS will start you with the **current selected set**. If you EXPAND, MCLLS will process your choices based on the entire data base.

SPECIFIC SEARCH (NARROW)

MCLLS No	Seq No	RAP No	Selected
10843-23976	00010		
10843-25146	00011		
21154-38815	00009		
21733-32895	00008		
22327-61351	00017		
31740-04244	00018		
31740-04293	00007		
31740-31443	00002		
31744-99628	00015		

Record 10/20

Figure 30

CHAPTER 7 - CREATING A REPORT

1. **The Reports Function.** MCLLS provides for seven pre-defined reports. Three are categorized as BASIC Reports and four are RAP Reports. MCLLS enables you to create them, view them on screen, and send them to a printer. All reports are also saved to disk, and each type has a ".RPT" suffix. There are two pop-up menus associated with the Create Reports Function because the BASIC and RAP reports each have a distinct sub-menu.

a. **Basic Reports.** The three Basic Reports begin with the Long/After Action Report which is a complete record of each MCLL including administrative data, keywords, and narratives. Next, the Title Report lists the titles of all the records in the **current selected list**, and the Keyword List Report is a listing of all the keywords associated with the **current selected list** along with a raw number of occurrences and the percentage of lessons learned in which each one appears.

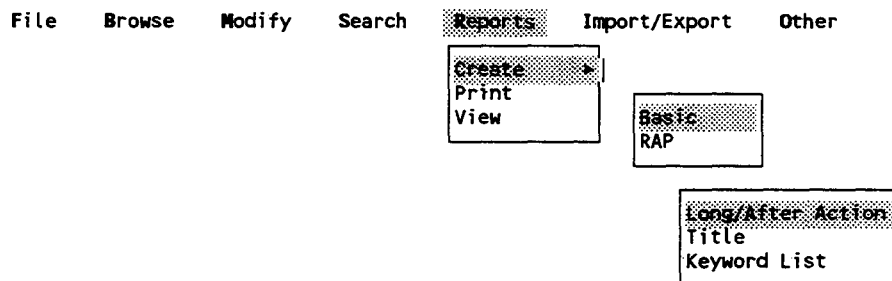


Figure 31

b. **RAP Reports.** Again, these reports are used by the Remedial Action Section at MCCDC. You may, however, find uses for them within your command. There are four Remedial Action Program reports. The Full Report is the first of these and is analogous to the MCLLS Long Report. It contains all the information associated with any lesson learned for which formal Remedial Action has been initiated. In addition to the expected lessons learned narrative information, the Full Report contains information on sources, milestones (by-dates for the management of corrective action), and funding costs. The Office of Primary Responsibility (OPR) Report is analogous to the lessons learned Title Report; in fact what it does is tie the RAP Title to the appropriate OPR and individual Point of Contact. The Validation Report is a schedule of sorts, and ties each RAP to the future activities where the corrective action will be tested. The Status Report is a RAP management summary that provides the number of open and closed RAPs for any **current selected list**, as well as the percentage of RAPs in that range that are closed.

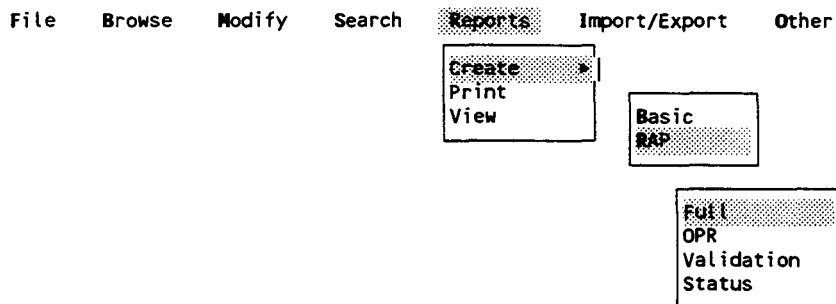


Figure 32

2. **Creating, Viewing, and Printing Reports.** Whenever you choose to CREATE a report, the MCLLS sub-menu will ask you to choose the report you wish to create. MCLLS creates your chosen report in a text file format, using the name of the report type and an ".RPT" suffix.

a. You can overrule that default name and extension, but if you wish to have several different Long/After Action Reports (for example) stored on your computer, it is recommended that you name them LONG1.RPT; LONG2.RPT, etc. If you then press <F4>, a screen showing you the entire library of previously created REPORT files with the ".RPT" extension will appear. If you change the extension, the <F4> will not find your "unique" report.

b. In addition to advising you that an identically named report file may already exist, (such as "VALID.RPT") MCLLS also responds to a command to create the report by providing a screen enabling you to "tailor" your new report. This is called the PRINTER OPTION screen, discussed in somewhat more detail below.

c. When you press <Page Down> to tell MCLLS to create the report, MCLLS will flash status information across the screen until the report is printed. As soon as the report is created, MCLLS will begin printing it. When printing is complete, MCLLS will return you to the menu. If your computer does not have a printer hooked up, a message will appear telling you that the printer is not on-line.

d. If you wish to VIEW the report before PRINTing, simply disconnect your printer (or turn off the printer power) before executing the PRINT command, go through the regular process to print a report, press the <Esc> key when the message about your printer not being on-line appears, then press the <↓> key to highlight the View option, and press <Enter>. The report will be "printed" to your monitor's screen.

NOTE: Remember, if you change the ".RPT" extension to one of your own choosing, the <F4> key will not list that unique report.

3. The Printer Option Screen and Special Printing

Considerations. The Printer Option capability gives the user additional control over the possible classification of the report before printing is begun. You will notice that the default classification is UNCLASSIFIED, but pressing the <F8> key enables you to change that easily. Additional options are shown for your tailoring of the report with or without page numbering or with or without a cover sheet. The Print Option Screen also gives you a final chance to "sort" your **current selected list** with the bottom three data fields. This is an opportunity to have the report order the records based on the data fields that the <F8> key will pop-up. Within each category, however, the order is fixed. That order is from lower to higher numerically and from "a" to "z" alphabetically. When your selections are complete, pressing <Page Down> sends the report directly to your printer.

File Browse Modify Search **Reports** Import/Export Other

Create *

PRINTER OPTION

*Report Classification: UNCLASSIFIED

Classification Qualifier:

Start with Page Number: 1 Page Number Qualifier:

Suppress Page Numbering (Y/N): N Print Cover Sheet(Y/N): Y

Fields to Sort on:

*Field1: *Field2: *Field3:

Current selected list : (2 of 20) Name of data base : MSMAL
<F8>-Acceptable values list (*-marked fields) <PgDn>-Generate Report

Figure 33

NOTE: MCLLS defaults printing to the parallel port (LPT1). If you do not have a parallel port, the first course of action is to seek help from a computer technician at your location. If and when you have exhausted all reasonable, local efforts to solve the problem, call the MCCDC POC or the Chief Programmer named in the "About MCLLS" screen.

NOTE 2: For most serial printers the following commands entered EXACTLY as shown at the DOS prompt BEFORE starting a MCLLS session, will allow MCLLS to print reports via the COM1 port:

```
MODE COM1:96,N,8,1,P<Enter>
MODE LPT1:=COM1<Enter>
```

CHAPTER 8 - IMPORT/EXPORT FUNCTIONS

1. **The Import/Export Function.** This function provides ways to transport, update, and copy MCLLS data bases. Specifically, MCLLS provides three export and four import options. The export options include: (1) Creating an export file (for ease of transportability); (2) Writing narratives to a text file (for editing with a word processor); and (3) Cloning (copying) the entire current data base. The import options include: (1) Importing data (MCLLS records) from an export file (created for ease of transportability); (2) Revising (Update) narratives from a text file (edited in a word processor); (3) Appending another data base to the current data base; and (4) Updating the current data base with lessons learned that have been edited in another data base.

a. **Create an Export File.** Since an export file is the most compact way to transmit all or part of a data base, this option is the most commonly used Import/Export operation. After selecting a data base and (if desired) narrowing the **current selected list**, selecting this option will produce a screen asking you to give the file a name. Note that MCLLS provides both a default path and file name. Pressing the <F4> key also provides a list of already existing export files (designated by the suffix ".ASC"). This option at least suggests you will copy the ".ASC" file to a diskette for transport to someone else, and you might choose to CREATE it directly to the A:\ drive by changing the path in the screen below.

File	Browse	Modify	Search	Reports	Import/Export	Other
------	--------	--------	--------	---------	----------------------	-------

Create an export file
Import data from an export file

Write selected narratives to text file
Revise narratives from a text file

CREATE EXPORT FILE PROCEDURE

Enter the name of file to create.

D:\MCLLS\EXPORT.ASC

Press <F4> for a directory of files.

a base
ther

Current selected list : (2 of 20)
<F1>-Help | Generate an export file to disk

Name of data base : MSMAL

Figure 34

(1) Normally, the user simply presses the <Enter> key to accept the existing default file name, or positions the cursor to overwrite and create a new, distinct file name. If any selected file name already exists when the user presses <Enter> to

select it, MCLLS will ask to confirm your decision to overwrite it or not. Pressing <Enter> will create the file.

(2) Typing "N" in place of the "Y" and then pressing <Enter> will return you to the previous screen. Simply pressing the <Esc> key will do the same thing. Normally, at that point, you would give a unique name to the report you have just created.

Append a data base to current data base Update current data base from another
File already exists. Overwrite? (Y/N) *

Figure 35

NOTE: If you intend to transmit data via the message center or a telephone modem, you must generate an export file and transmit the export file rather than the data base itself.

NOTE 2: Even though the export file is an ASCII text file, DO NOT attempt to edit that file. Loss of data is almost certain to result if you do.

b. **Import Data from an Export File.** IMPORTing is the opposite of the Create an export file option. Selecting it will produce a window asking you to identify the file name of the export file to be IMPORTed into the current data base. Once again, the user can either accept the default filename "EXPORT.ASC" or use <F4> to select an alternative. Once the file name is selected, pressing the <Enter> key will complete the process.

(1) If the information in the EXPORT file already exists in the current data base, it will be updated automatically. If the information does not already exist, new records will be added to the end of the current data base.

(2) Naturally, if someone has given you an export file to IMPORT from a 3½ or 5¼ inch diskette, you may IMPORT straight from the A:\ drive by typing over the default information.

NOTE: After IMPORTing data from an export file, MCLLS will Pack the narratives automatically, removing old copies of them.

c. **Write Selected Narratives to a Text File.** This is procedurally very similar to the Create an export file option described earlier. After activating a data base and (if desired) narrowing to a new **current selected list**, selecting this option will prompt the user to name the file of narratives to be created.

(1) In this case, note that the default name for such a file is the current data base name with the suffix ".TXT." A list of already existing ".TXT" files will appear if you press the <F4> key. Pressing the <Enter> key will accept the default name, or pressing <Enter> after changing the name, will create the file. Once again, the smaller window asking you to accept or cancel an overwrite action will appear should there be an existing ".TXT" file of the same name.

(2) Because you will use this EXPORT option principally to edit the narratives, you may wish to change the path to your word processor directory, such as "C:\WP\DOCS," while retaining the "SMALL.TXT" filename MCLLS creates.

File	Browse	Modify	Search	Reports	Import/Export	Other
------	--------	--------	--------	---------	---------------	-------

Create an export file
 Import data from an export file

Write selected narratives to text file
 Revise narratives from a text file

NARRATIVE WRITE TEXT PROCEDURE

Enter the name of file to create.

D:\MCLLS\SMALL.TXT

Press <F4> for a directory of files.

a base
ther

Current selected list : (20 of 20)
 <Enter>-Accept

Name of data base : MSMAL
 <Esc>-Abort

Figure 36

d. **Revise Narratives from a Text File.** This is the converse of the Write selected narratives to a text file option described immediately above. Selecting it will produce a screen that asks the user to name the text file to be "read" into the active data base. The default name will be the name of the current data base, with the suffix ".TXT." Accepting the default name is normally the best choice since you are replacing narratives with edited copies of themselves. Pressing <Enter> at the naming screen will result in the narratives being read into the current

data base. MCLLS keeps track of the records by Sequence Number, separating each individual narrative with a string of three asterisks, the Sequence Number, and another three asterisks. Therefore, it is very important that your Writing to and Revising from actions do not get the file name confused.

NOTE: If you edit the text file in a word processor, you must save the edited file as an ASCII text file, that is, without any control characters whatsoever. The ASCII text file must be set to no more than 63 characters per line.

NOTE 2: If the file contains Sequence Numbers that do not exist in the current data base, they will be ignored.

e. **Clone (Copy) the Current Data Base.** This option is used to make a copy of all or a specific part of the current data base. All administrative data, narratives, keywords, milestones, and sources are copied to the new data base. The default location for the new data base is in the current directory. Accordingly, if you intend to clone to the current directory, you must provide a new and unique data base name. If you desire to keep the same data base name, the clone must be created in a different directory or on a different drive.

File	Browse	Modify	Search	Reports	Import/Export	Other
------	--------	--------	--------	---------	---------------	-------

Create an export file
 Import data from an export file

Write selected narratives to text file
 Revise narratives from a text file

Clone (Copy) current data base

New Data Base Name
a base
ther

Enter Drive/Directory: D:\MCLLS\

Enter Unique Data Base Name:

Current selected list : (20 of 20) Name of data base : MSMAL
 <F1>-Help | Enter the drive and directory where to build the data base.

Figure 37

f. **Append a Data Base to the Current Data Base.** This option simply adds a MCLLS data base to the end of the current one. Having one data base already activated, this option provides a window from which another data base can be selected. The user simply highlights the data base to be appended to the current one, and presses <Enter>. In the window, for example, selecting the MSMLX data base would result in the 22 MSMLX lessons learned being appended to the 20 lessons learned in MSMAL. The result would be a 42 lesson learned MSMAL data base. Note that the MSMLX data base will remain unchanged (i.e. a data base is not "consumed" when appended to another--the records are simply copied).

File Browse Modify Search Reports **Import/Export** Other

Create an export file
 Import data from an export file

Pick a Data Base
ives to text file
m a text file

Drive\Directory
 D:\MCLLS\

Data Bases	Records
JANDY Mar 9, 1993	229
MSMLX Mar 5, 1993	22
MSMAL Mar 9, 1993	20

data base
current data base
ase from another

Current selected list : (20 of 20) Name of data base : MSMAL
 <F1>-Help | Enter the drive and directory where to find the desired data base.

Figure 38

g. **Update Current Data Base with Another Data Base.** This function is used to update the lessons learned in the current data base with the same lessons from another (source) data base. It finds identical MCLLS Numbers in the current data base and overwrites the record wherever a duplicate MCLLS Number is encountered. Its purpose is to "fix" a data base that might have been corrupted, or to replace certain information based upon other reasons such as having had a single person edit and "fix" a range of lessons learned from the master data base at your headquarters. If there are lessons learned in the other data base in addition to those contained in your current data base, they will be APPENDED to the end of your current one. UPDATING simply replaces records already in existence and APPENDS records that are not already in the data base. While updating, MCLLS gives you an advisory message.

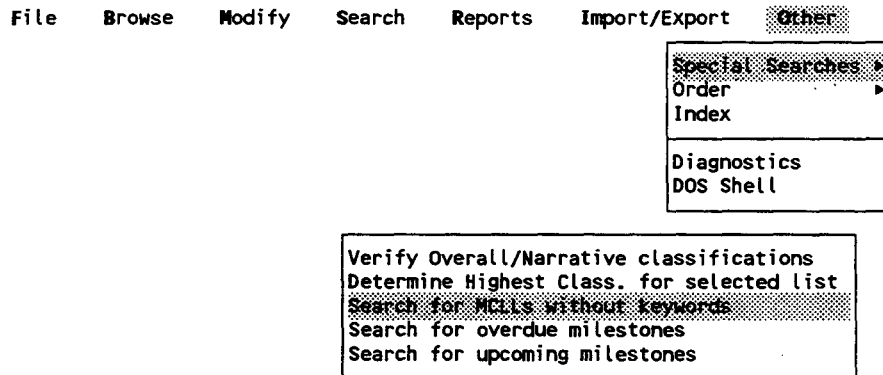
Updating 31744-43005 : 00001 with 00001 from D:\MCLLS\MSMLX

Figure 39

CHAPTER 9 - OTHER MCLLS FUNCTIONS

1. **The Other Function.** This function provides the user with the capability to perform operations that are needed only infrequently. The operations include conducting searches that allow the user to verify that a MCLLS data base meets certain administrative or security requirements; file management functions involving ordering and indexing; and, non-MCLLS computer operations including diagnostics and the use of a DOS shell.

a. **Special Searches.** MCLLS provides five special search options. Each is explained below.



Current selected list : (20 of 20)
<F1>-Help | Search for all MCLLS without keywords

Name of data base : MSMAL

Figure 40

(1) **Verify Overall/Narrative Classifications.** This option searches the **current selected list** comparing the classification of each narrative paragraph of each MCLL with the overall classification of that MCLL recorded in the administrative data. At the end of the search, the selected list will be set to reflect only those MCLLS that have a possible classification conflict (e.g. the overall MCLL classification is UNCLASSIFIED, but the classification of a paragraph in the narrative is CONFIDENTIAL). The option should be executed before releasing a data base in order to verify the accuracy of the classification markings.

(2) **Determine Highest Classification for Selected List.** This option determines the highest classification contained in the **current selected list** of records. The option is to help you determine the required level of protection of the data for transmittal or storage. If you are mailing a data base somewhere, you should run this option immediately following the previous classification verification option.

(3) **Search for MCLLS without Keywords.** Keywords are such an important part of a MCLLS data base that this function should be used to verify that all MCLLS have keywords. At the end of the search, MCLLS will change the **current selected list** to reflect only those records without keywords. At this time the user can either use the pop-up keyword template, available in the Modify/Edit function, to keyword the selected list, or clone the selected list to another data base (perhaps called "NOKEY") and run MCAKS on the clone. After running MCAKS, the user must run the Update current data base from another option (Import/Export function), in order to update the original data base with the "NOKEY" records which now have keywords.

(4) **Search for Overdue Milestones.** This operation searches the **current selected list** to determine if any MCLLS contain overdue RAP milestones. After the search, MCLLS will change the **current selected list** to reflect only those records with overdue milestones.

(5) **Search for Upcoming Milestones.** This option presents the user with two date windows. To conduct the search enter the "from" date and the "to" date in the boxes, and press <Enter>. It is a convenient way to summarize Milestone information for the next 30 or 90 days as a matter of managing your own time and effort. It is particularly helpful if you or some other Marine involved with RAP anticipates an upcoming absence, and you need to "plan around" that absence. This search also resets the **current selected list** automatically to include only those lessons learned with RAP Milestones coming due between the dates you specified.

b. **Order.** Ordering permits the user to have keywords appear in alphabetical order, and certain numeric values appear in ascending or descending order. The addition of new keywords, milestones, etc., will take place at the end of the data base, thus requiring repetition of the function to keep the data ordered consistently. You may order KEYWORDS alphabetically, and order MILESTONES in either ascending or descending order from a baseline date.

NOTE: The ordering process is irreversible, and the data cannot be "unordered".

c. **Index.** MCLLS uses the index files (.NTX files) to speed up access to lessons learned, keywords, milestones, and sources. If the index files are not properly formatted, MCLLS may not be able to find the the desired information quickly, or in some cases may not be able to find the needed information at all. Even though MCLLS updates the indexes automatically in connection with some routine functions, periodic (i.e. weekly) indexing is recommended.

d. **Diagnostics.** The diagnostics function provides data base, computer system, and path information, as shown on the following screen:

```

File   Browse   Modify   Search   Reports   Import/Export   Other
                                                Special Searches >
                                                Order >
Diagnostics
DATA BASE INFO:
  Data base name: MSMAL
  Data base directory: D:\MCLLS\
  Number of records: 20
  Number of keywords: 620
  Number of milestones: 2
SYSTEM INFO:
  Available Memory: 234496
  Available Disk Space : 18413576
  DOS Version: DOS 5.0
PATH=C:\;C:\DOS;C:\TOOLS;C:\BRIEF;C:\WP;C:\MANAGE;D:\MCLLS;C:\DB
ASE;C:\MTF
<Esc>-Exit

```

Figure 41

e. **DOS Shell.** The DOS shell temporarily exits MCLLS in order for the user to perform simple DOS commands such as DIR, COPY, or FORMAT. Memory resident programs should not be executed from the shell as MCLLS data could be lost. Upon completing DOS work, the user types <EXIT>, and presses <ENTER> to return to MCLLS.

APPENDIX A - ERROR MESSAGES

Error Messages. The following is a list of all possible error messages or warning messages that could appear in MCLLS. For each error and warning message, there is a recommended solution to the error or warning. For this chapter, FILENAME is the name of a non-database file name; DATABASENAME is the name of a data base; MCLLSNUM is the unique 10-digit number that is assigned to each MCLL; and SEQ_NUM is the 5-digit record number that is assigned to each MCLL within a data base.

- a. **ERROR :** Cannot create FILENAME.
RECOMMENDATION : Make sure that the FILENAME you specified is in the proper DOS format, that there is enough disk space on the drive where you want to create the file, and that the drive you specified actually exists.

- b. **ERROR :** Cannot find FILENAME.
RECOMMENDATION : Make sure you specified the correct FILENAME, drive and directory.

- c. **ERROR :** Cannot open FILENAME.
RECOMMENDATION : Make sure you specified the correct file name, drive and directory.

- d. **ERROR :** Cannot update a file from itself.
RECOMMENDATION : You cannot append the current data base to the end of the current data base. You need to specify another data base as the source data base.

- d. **ERROR :** Cannot write to file.
RECOMMENDATION : Ensure that there is sufficient disk space on the drive containing the data base.

- e. **ERROR :** Data base DATABASENAME is not complete.
RECOMMENDATION : Select DATABASENAME as the current data base. When you try to do this, MCLLS will create the missing files for you. Then you can return to the old data base and proceed normally using the DATABASENAME data base.

- f. **ERROR :** Error writing to file : FILENAME.
RECOMMENDATION : Make sure you did not run out of disk space on
 the disk drive containing FILENAME.
- g. **ERROR :** FILENAME file is not available.
RECOMMENDATION : Make sure the FILENAME you specified is in the
 data base directory and that you spelled the
 FILENAME correctly.
- h. **ERROR :** Incompatible search file.
RECOMMENDATION : The search file you specified was created by an
 old version of MCLLS and is no longer able to be
 read by MCLLS. If you know the search criteria,
 re-do the search from beginning.
- i. **ERROR :** Invalid drive or directory.
RECOMMENDATION : Either the drive or the directory you specified
 for the data base does not exist. Enter an
 existing drive and directory.
- j. **ERROR :** MCLLS number MCLLSNUM is not in this data base.
RECOMMENDATION : The MCLLS number that is part of the source of
 the current MCLL is not in the current data
 base.
- k. **ERROR :** No data bases/files in this directory.
RECOMMENDATION : Make sure you are referencing the correct drive
 and directory.
- l. **ERROR :** No MCLLS were selected.
RECOMMENDATION : You need to go the MCLLS SEARCH FUNCTION screen
 to select specific MCLLS or a range of MCLLS to
 use.
- m. **ERROR :** No keywords for this MCLL.
RECOMMENDATION : If you know there are keywords for this MCLL,
 then return to the main menu, select the Other
 Function and execute the Index Option.

- n. **ERROR :** No milestones for this MCLL.
RECOMMENDATION : If you know there are milestones for this MCLL,
 then return to the main menu, select the Other
 Function and execute the Index Option.
- o. **ERROR :** Not enough disk space to pack narratives.
RECOMMENDATION : Exit MCLLS and erase any unnecessary files on
 the drive containing the MCLLS data base. You
 need at least as much space as the _J.DBT and
 the _J.DBF files combined.
- p. **ERROR :** Part of data base DATABASENAME already exists.
RECOMMENDATION : You can not create a cloned data base that has
 the same name as an existing data base. You
 must specify a unique data base name for the
 cloned data base.
- q. **ERROR :** Printer is off-line.
RECOMMENDATION : Check to ensure cables are connected and power
 is on. Ensure the printer is properly
 installed.
- r. **ERROR :** The file MCLLTEMP.DBF is not available.
RECOMMENDATION : MCLLS is looking for the file MCLLTEMP.DBF to
 display the template of keywords. The
 MCLLTEMP.DBF file must be in one of the
 following directories: the \MCLLS directory, the
 directory containing the data base you are
 currently using, or in the directory you called
 MCLLS from.
- s. **ERROR :** The files MCHELTS.DBF and MCHELTS.DBT are not
RECOMMENDATION : available. MCLLS is looking for the files
 MCHELTS.DBF and MCHELTS.DBT to get the help
 information. The help files must be in one of
 the following directories: the \MCLLS directory,
 the directory containing the data base you are
 currently using or in the directory you called
 MCLLS from.
- t. **ERROR :** There is no help available for this item.
RECOMMENDATION : Consult the Users Manual for any helpful
 information.

- u. **ERROR :** There is no search to restore.
RECOMMENDATION : You have no searches saved in the directory containing the data base you are currently using. If you have saved a search make sure it is in the directory containing the data base you are using.
- v. **ERROR :** Warning: The narrative is nearing the maximum size allowable. This is a message to tell you that the narrative you are currently modifying is nearing 10K bytes. To check how large the narrative is, you need to save the narrative (press <Ctrl-W>) and then press <Alt-N>). On the top line of the narrative window you will see the size, in bytes, of the narrative. You need to make sure that no narratives exceed 10K bytes.
- w. **ERROR :** You have not selected any filters.
RECOMMENDATION : You must enter at least one criterion for MCLLS to search.

APPENDIX B - MCLLS DICTIONARY

1. **ADMINISTRATIVE INFORMATION** : Information relative to a lesson learned that is not necessarily a part of the lesson itself. It includes information such as dates, sponsoring or reporting commands or individuals, the exercise or operation in question, information to track corrective action, and other such data. Importantly, administrative data can also be used for searching the MCLLS data base.
2. **AUTOEXEC.BAT** : The file DOS uses to find those commands to load into the ENVIRONMENT SPACE of your computer. For example, both the SET CLIPPER= and PATH commands are found in the AUTOEXEC.BAT file.
3. **BUFFERS=** : A command in your computer's CONFIG.SYS file which tells DOS how many 512 byte blocks of memory are to be reserved to speed up processing. MCLLS requires that the BUFFERS= command be set to BUFFERS=20.
4. **CLIPPER** : The programming language in which MCLLS is written.
5. **CONFIG.SYS** : The file DOS uses when it configures your computer. For example, both the FILES= and BUFFERS= commands are found in the CONFIG.SYS file.
6. **CURRENT DATA BASE** : The data base that you are using at present.
7. **DOS** : The Disk Operating System under which your computer runs. All users of MCLLS must be using either MS-DOS or IBM DOS. The DOS version must be 2.0 or later for stand-alone systems and 3.3 or later for Local Area Networks.
8. **ENVIRONMENT SPACE** : A part of memory reserved by DOS to store information that can be used by all programs. For example, PATH= and CLIPPER= is stored in the environment space.
9. **FILES=** : A command in your computer's CONFIG.SYS file which tells DOS how many files can be open at the same time. MCLLS requires that the FILES= command be set to FILES=30.

10. **HOT KEY WINDOW** : The list of keys that are active for the current screen. The window is at the bottom of the screen and is highlighted with the colors red on grey.

11. **HOT KEYS** : The set of keys that MCLLS recognizes. Some HOT KEYS are active only for certain screens and other HOT KEYS are active for every screen. See also HOT KEY WINDOW.

12. **JAARS (Joint After Action Reporting System)** : The directive that states the requirement for all after action reporting, stipulates the procedures for the reporting, and outlines the format in which lessons learned will be submitted.

13. **JULLS (Joint Universal Lessons Learned System)** : This program is used to summarize the results of a JCS exercise or military operation. It contains information on who participated in the exercise, what was attained and learned during the exercise or operation, and where, when, and why it was held.

14. **MCAKS (MCLLS Automated Keywording System)** : A program that reads each narrative of a MCLL and automatically selects the appropriate keywords associated with the narrative and places the keywords in the keyword file of the data base. MCAKS also allows the user to oversee the systems picks and manually insert and delete keywords as needed.

15. **MIIP (MCLLS Instructional Input Program)** : A separate, stand-alone program that can be used to facilitate input of properly formatted lessons learned.

16. **MCLL** : The summary or lesson learned from a single exercise or operation. It has five parts: administrative information, narratives, keywords, milestones and source information.

17. **MCLLS (Marine Corps Lessons Learned System)** : A lessons learned system designed to be compatible with the JULLS to ensure that Marines have an appropriate library of lessons learned available to them. MCLLS is designed so as to avoid an additional requirement to submit different reports to the JCS, CINCPAC, or other commander's after action reports.

18. **MCLL NUMBER** : A unique 10-digit number that is assigned to each MCLL to distinguish it from MCLLs in the same data base and in other data bases. No MCLL will have the same MCLL number and MCLL numbers will not change when a MCLL is cloned or appended.
19. **KEYWORD** : A word or phrase(s) that identifies the content of a lesson learned. The word or phrase(s) is limited to 25 characters.
20. **LESSON LEARNED NARRATIVE** : Discussion of some activity that occurred during an exercise or operation. The narrative describes what lesson(s), if any, were learned from the activity and lists recommendations to solve specific problem(s) if any occurred.
21. **MILESTONE** : Dates associated with intermediate sub-actions for an action. There are three dates for each sub-action: the baseline date, forecast date for when the sub-action is to be completed, and the actual date the sub-action is completed.
22. **NARRATIVE DESCRIPTION** : A free form text description of an observation during an exercise or operation. There are two formats for narrative descriptions. See SUMMARY NARRATIVE and LESSON LEARNED NARRATIVE. Both formats are limited to 10,000 characters in length.
23. **PATH=** : A list of alternative drives and directories where DOS looks to find programs when the program is not in the directory from which you called it. The MCLLS directory must be in your path for MCLLS to work.
24. **RECORD NUMBER** : See SEQUENCE NUMBER.
25. **SCROLL WINDOW** : In the Modify/Edit and Modify/Add functions, the window that appears when you press the <Alt-K> is called the scroll window.
26. **SELECTED LIST** : The current group of MCLLs, either a range or a selectively chosen set, which will be used by MCLLS when performing a function, such as Browse, Modify or Import/Export. The selected set will remain until a new selected set is created.

27. **SELECTED SET** : See SELECTED LIST.

28. **SEQUENCE NUMBER** : A 5-digit number, padded with leading zeros, which distinguishes each MCLL within a single data base and also ties the administrative data, keywords, milestones and sources together. A sequence number will change when a MCLL is appended or cloned to a new data base. Same as the RECORD NUMBER.

29. **SET CLIPPER=v008;r051;f030** : A command stored in the environment space which MCLLS uses to execute more efficiently. This command is put in your AUTOEXEC.BAT file by the MCLLS installation program.

30. **SUMMARY NARRATIVE** : Summary of the objectives for and limitations of participants in an exercise or operation. It also discusses when and where the exercise or operation took place and the major units that participated in it.

APPENDIX C - COMMONLY ASKED QUESTIONS

1. Why is it that every time I mark a MCLL, keyword, or milestone for deletion it is not deleted when I check at a later time?

EXPLANATION: Marking a MCLL, keyword, or milestone does not delete it. Marking sets a flag to TRUE for the record that has been marked. If the flag is TRUE, then the delete option actually deletes the marked item.

RECOMMENDATION: After you have marked all of the items you want to have deleted, choose Modify/Delete/Delete all marked items. This option will display all items that have been marked for deletion for you to verify. If you agree with everything that has been marked, then continue to execute the delete option.

2. Even though I know I have keywords and milestones for a specific lesson learned, why is it that every time I press ALT-K or ALT-M to pull up the respective item, a message stating "No keywords/milestones." is displayed.

EXPLANATION: MCLLS uses index, .NTX, files to more efficiently and effectively reference the keywords and milestones stored in the respective .DBF files. If the index files are out of order, then MCLLS will not know where the respective items are to be found in the appropriate .DBF file.

RECOMMENDATION: To update the index files, return to the main menu, select the Other Function and execute the Index option.

3. How come when I press the direction keys, (Up, Down, Left and Right arrows, Page Up, Page Down, Home and End) nothing happens?

RECOMMENDATION: Make sure the NUM LOCK key is off.

4. When I am adding a new MCLL why won't the cursor move past the classification field?

EXPLANATION: Each MCLL MUST have a classification! MCLLS is waiting for you to enter a valid classification for the MCLL.

RECOMMENDATION: Simply press <F8> for a display of acceptable classifications. Arrow down to the appropriate selection and press the <Enter> key.

5. I have a monochrome monitor, but MCLLS thinks I have a color monitor because I have a color card inside my computer. How can I tell MCLLS that I have a monochrome monitor?

RECOMMENDATION: If you want to tell MCLLS that you have a monochrome monitor, enter the following command at the DOS prompt:

<MCLLS M> <Enter>

APPENDIX D - MCLLS ENHANCEMENTS AND CHANGES

With Version 4.0 of MCLLS (Marine Corps Lessons Learned System) the user will see the following enhancements and changes from Version 2.0

1. The program was rewritten in CLIPPER 5.0.
2. The menus have changed to a more conventional drop-down methodology.
3. For each menu item, there is one line of help at the bottom of the screen to help the user determine the purpose of the menu item.
4. For each menu item, when the user presses <F1>, he will get detailed help for that individual menu item.
5. Throughout most of the program, the user can use a mouse to move through the program.
6. The "Display" menu item has been changed to "Browse".
7. All of the previous "hidden" functions, i.e., Alt-V - View reports, Alt-P - Print reports, Alt-O - Order data base, and Alt-I - Index data base, are now menu items.
8. There are now two options for selecting a data base to use. The user can either open an existing data base or create a new data base.
9. The program changes the cursor size depending on whether you are in insert or overwrite mode. Insert is the regular (underscore) cursor; overwrite is the larger "blob" cursor.
10. When at the hot key window after editing the administrative data, the user can press <TAB> to return to editing the administrative data.
11. When editing or displaying a narrative, the user can press <F7> to perform an in-narrative text string search. The search begins at the location of the cursor and goes to the end of the narrative.
12. When editing a narrative, the user can press <F5> to enable a spell checker. Because of its size, the spell checker is not embedded in MCLLS, but is a separately installed program.

13. Added an option, under the File Menu that allows the user to see a window displaying the names of the people to contact if they have questions about the program that their local chain of command cannot answer.
14. Modified the "Display Search Criteria" screen to display the information in a more organized fashion.
15. Added a new routine that allows the user to order milestones in descending order.

APPENDIX E - LIST OF ALL CURRENT MCAKS GENERATED KEYWORDS

1ST FSSG	AFR (AIR FORCE RESERVE)	AMMUNITION
1ST MARINE DIVISION	AFRICA	AMPHIBIOUS
1ST MAW (MAR ACFT WING)	AFRTS (AF RADIO TELE SVC)	AMRAAM (ADV MED RNG AA M)
2D FSSG	AFSC (AIR FOR SPEC CODE)	AN/ARN-138
2D MARINE DIVISION	AFSOB (AF SPCL OP BASE)	AN/AVS-6 (NGT VIS GOGLS)
2D MAW (MAR ACFT WING)	AFSOUTH	AN/GRC-160 (RADIO SET)
2ND FLEET	AFTERSHOCK	AN/GRC-193 (RADIO SET)
3D FSSG	AGI (INTEL COLLECTOR)	AN/GRC-201 (RADIO SET)
3D MARINE DIVISION	AGO (AIR GROUND OPNS)	AN/MRC-109 (RADIO SET)
3D MAW (MAR ACFT WING)	AH-1 HELICOPTER	AN/MRC-110 (RADIO SET)
3RD FLEET	AH-1G HELICOPTER	AN/MRC-135 (RADIO SET)
6TH FLEET	AH-1T HELICOPTER	AN/PRC-104 RADIO
7TH FLEET	AH-1W HELICOPTER	AN/PRC-113 RADIO
A-10 AIRCRAFT	AH-64 HELICOPTER	AN/PRC-126 RADIO
A-7 AIRCRAFT	AH/ERS (AL HQ/EM REL SIT)	AN/PRC-47 RADIO
A-7E AIRCRAFT	AI (AIR INTELLIGENCE)	AN/PRC-75 RADIO
A/DACG (AR/DP AFD CNT GP)	AI (AIR INTERDICTION)	AN/PRC-77 RADIO
AAA (ANTIAIRCRAFT ARTY)	AI (AIRBORNE INTERCEPTOR)	AN/PSC-3 RADIO
AAA (ARR AND ASMBY AREA)	AIDA (AIRBS DAM ASSMT)	AN/PSC-3A RADIO
AABL (ADV ATM BURST LOC)	AIG (ADD INDIC GP)	AN/TSC-93A (SATCOM EQUIP)
AACG (ARRIVAL AF CNTL GP)	AIR APPORTIONMENT/ALLOCAT	AN/VRC-46 RADIO
AADC (AREA AIR DEF CDR)	AIR BASE SECURITY	ANDAMAN SEA
AAM (AIR TO AIR MISSILE)	AIR DEFENSE	ANGLICO (AIR NGF LN CO)
AAOC (ANTI AIR OPS CTR)	AIR FORCE MANUAL	ANGOLA
AAPI (ATK ASS PRED IMPCT)	AIR FORCE NATIONAL GUARD	ANTARCTICA
AAR (AFTER ACTION REPORT)	AIR FORCE REGULATION	ANTI AIR WARFARE
AAR (ALT ARCRFT REPOSTNG)	AIR LAUNCHED OPERATIONS	ANTI RADIATION MISSILE
AAS (ATK ASSMT SYS)	AIR NATIONAL GUARD	ANTIPERSONNEL MINE
ABCCC (ABN BTFLD C2 CTR)	AIR STRIKE	ANTISUBMARINE
ABFS (AMPHIB BULK FUEL S)	AIR WARFARE	ANTITANK MINE
ABGD (AIR BASE GND DEF)	AIRBORNE DIVISION	AOR (AREA OF RESPONSBLTY)
ABNCP (AIRBORNE CMD POST)	AIRBORNE/AIR DROP	APOD (AERIAL PORT OF DEB)
AC-130 AIRCRAFT	AIRCRAFT CARRIER	APOE (AERIAL PORT OF EMB)
ACA (AIRSPACE COORD AREA)	AIRCRAFT SAFETY	AR
ACDIV (ASLT CRAFT DIV)	AIRCREW TRAINING	AR (ARMY REGULATION)
ACINT (ACOUSTIC INTEL)	AIRLIFT	ARB (ALT RECONSTITTN BASE)
ACO (AIRSPACE CNTL ORDER)	AIRSPACE MANAGEMENT	ARCTIC
ACU (ASLT CRAFT UNIT)	ALASKA	ARCTIC OCEAN
ACV (AIR CUSHION VEH)	ALBANIA	AREA CLEARANCE
AD (DESTROYER TENDER)	ALCC (AIRLIFT CNTL CTR)	ARF (AIR RESERVE FORCE)
ADA (AIR DEF AIRCRAFT)	ALCC (ARBN LNCH CNTL CTR)	ARGENTINA
ADA (AIR DEF AREA)	ALCE (AIRLIFT CNTL ELM)	ARMORED DIVISION
ADA (AIR DEF ARTILLERY)	ALCM (AIR LNCHD CRS MSLE)	ARMY NATIONAL GUARD
ADCON (ADMIN CONTROL)	ALCS (ARBN LNCH CNTL SYS)	ARMY SIGNAL CENTER
ADMINISTRATION	ALEUTIANS	ARMY SIGNAL SCHOOL
ADP/COMPUTERS	ALFA ALERT FORCES	ARMY TRANSPORTATION SCOL
ADVERSE WEATHER	ALGERIA	ARTEP (ARMY TRNG EVL PGM)
AE (ASSAULT ECHELON)	ALLIED COMMAND ATLANTIC	ARTIFICIALITY
AEAO (ABN EMGY ACTS OFF)	ALLIED COMMAND EUROPE	ARTILLERY
AECC (AEROMD EVC CNT CTR)	ALLIED COMMUNICATIONS PUB	ASAC (ALL SOURCE ANAL CT)
AEELS (AUT ELEC EMTR LOC)	ALLIED TACTICAL PUB	ASAT (ANTISATELLITE)
AERIAL REFUELING	ALNF (APPL LIM NUC FRCS)	ASCM (ANTISHIP CRUISE MSL)
AEW (ABN EARLY WARNING)	ALO (AIR LIAISON OFFICER)	ASG (AREA SUPPORT GROUP)
AEW (ABN ELECT WARFARE)	ALO (ALFT LIAISON OFF)	ASIA
AFCENT	ALO (ARMY LIAISON OFF)	ASLAR (ACFT SRG LNCH RCV)
AFEES (ARMY AF EXCHANGE)	ALO (AUTH LVL ORG)	ASM (AIR TO SURF MSLE)
AFGHANISTAN	ALSAM (AIRLNC SHIP ATK M)	ASMRO (ARM SV MED REG OF)
AFLC (AIR FORCE LOG CMD)	ALTERNATE COMMAND POST	ASMS (ADV STRAT MSLE SYS)
AFM	ALTHQ-BS (ALT HQ BAT STF)	ASOC (AIR SPT OPS CTR)
AFMIC (AF MED INTEL CTR)	AMBULANCE	ASOC (ALLIED SEC OPS CTR)
AFMPC (AF MIL PERS CEN)	AMC (ARMY MATERIEL CMD)	ASP (AMMO SUPPLY POINT)
AFNORTH	AMCCOM (ARM MUN CHM CMD)	ASROC (ANTISUB RKT)
AFOE (ASLT FOLLOW ON ECH)	AMEDD (ARMY MED DEPT)	ASRT (AIR SPT RADAR TM)
AFR	AMEMBASSY	AST (ATMOS SURVL TECH)

ASTAR (ATM STK APPR REQ)
 ASTOR (ANTISUB TORPEDO)
 ASUW (ANTISURF WARFARE)
 AT SEA
 ATAF (ALLIED TAC AF)
 ATF (AMPHIB TASK FORCE)
 ATLANTIC FLEET
 ATLANTIC OCEAN
 ATO (AIR TASKING ORDER)
 ATOC (AIR TAC OPNS CTR)
 ATOC (ALLIED TAC OP CTR)
 ATP
 ATROPINE
 ATTACK HELICOPTER
 AUEL (ARMY UN EQUIP LIST)
 AUGMENTATION FORCES
 AUSTRALIA
 AUSTRIA
 AUTODIN
 AUTOSEVOCOM
 AUTOVON
 AV-8 AIRCRAFT
 AV-8B AIRCRAFT
 AVGAS (AVIATION GAS)
 AVIATION
 AVIATION FUEL
 AVIATION SAFETY
 AVLB (ARM VEH LNCH BRDG)
 AWACS (AIRB WRN CNTL SYS)
 AWADS (ADV WX AIR DEL SY)
 AWPDS (AT WN PRC DSP SYS)
 AZORES
 B-52 AIRCRAFT
 BAHRAIN
 BAI (BATTLEFIELD AIR INT)
 BAILEY BRIDGE
 BALTIC SEA
 BANGLADESH
 BAO (BASIC ATK OPTIONS)
 BASING RIGHTS
 BATTLESHIP
 BCE (BASE CIVIL ENG)
 BCE (BATTLE FLD CO ELEM)
 BCT (BOMBER CNTL TEAMS)
 BDA (BOMB DAMAGE ASSESS)
 BELGIUM
 BELIZE
 BERING SEA
 BERLIN GERMANY
 BETN (BAS ENC TGT NUM)
 BG (BATTLE GROUP)
 BIOLOGICAL WARFARE
 BLACK SEA
 BLOOD RESOURCES
 BLX (BAS LNCH COMPLEX)
 BMD (BALL MSLE DEF)
 BMDC (BALL MSLE DEF CTR)
 BMEWS (BAL MSL EWRN SYS)
 BOLIVIA
 BOMBER RECOVERY TEAMS
 BOSS (B-1B OPNL SUP SFTW)
 BRAAT (BSE RCVY ATK TM)
 BRAZIL
 BSA (BASE SUPPORT AGMT)
 BSA (BDE SUPPORT AREA)
 BSA (BEACH SUPPORT AREA)
 BTC (BLOOD TRANS CTR)

BTU (BEACH TERM UNIT)
 BULGARIA
 BURMA
 BURST COMMUNICATIONS
 C-130 AIRCRAFT
 C-141 AIRCRAFT
 C-5 AIRCRAFT
 C-5A AIRCRAFT
 C2 (COMMAND AND CONTROL)
 C3 (CMD, CNTRL AND COMMS)
 C3CM (C3 CTR MEASURES)
 CA (CIVIL AFFAIRS)
 CAFMS (CMP AST FRC MGT S)
 CALL SIGNS
 CAMOUFLAGE
 CAMPAIGN PLAN
 CANADA
 CAO (COORD ATOMIC OPS)
 CAOSOP (COOR ATM OPS SOP)
 CAP (CBT AIR PATROL)
 CAP (CRISIS ACTION PKG)
 CAPTURED MATERIAL
 CARDA (CNS AB RCN DAM AS)
 CARIBBEAN SEA
 CAS (CLOSE AIR SUPPORT)
 CAS (CRISIS ACTION SYS)
 CASUALTIES
 CASUALTY REPORTING
 CAT (CRISIS ACTION TEAM)
 CATS (CON AREA TELE SYS)
 CAUSEWAY FERRY
 CCC (CARDA COORDN CTR)
 CCC (CRISIS COORDN CTR)
 CCT (CBT CONTROL TEAM)
 CDRL (CRIT DEF REQT LIST)
 CDS (CONT DELIVERY SYS)
 CELOI (COMMELEC LTR INST)
 CENTAG (CENTRAL ARMY GP)
 CENTRAL AFRICAN REPUB
 CENTRAL AMERICA
 CEOI (COMM ELEC OPS INST)
 CEWI (CBT ELEC WAR & INT)
 CFA (COMB FIELD ARMY)
 CFC (COMBINED FORCES CMD)
 CH-34 HELICOPTER
 CH-46 HELICOPTER
 CH-47 HELICOPTER
 CH-53 HELICOPTER
 CH-53D HELICOPTER
 CH-53E HELICOPTER
 CHAD
 CHAPARRAL/VULCAN
 CHAPGRU (CGO HNDL PRT GP)
 CHIEF OF NAVAL OPERATIONS
 CHILE
 CHINA
 CHOP (CHANGE OF OP CNTL)
 CI (COUNTER INTELLIGENCE)
 CIA (CENTRAL INTEL AGENCY)
 CIC (CBT INFO CTR)
 CIC (CBT INTEL CTR)
 CIC (COMBINED INTEL CTR)
 CIL (CRIT ITEMS LIST)
 CINC PUBLICATIONS
 CIVIC ACTION
 CIVIL DEFENSE
 CIVILIAN PERSONNEL

CITS (CLOSE IN WPN SYS)
 CLASS I
 CLASS II
 CLASS III
 CLASS IIIA
 CLASS IV
 CLASS IX
 CLASS V
 CLASS VA
 CLASS VII
 CLASS VIII
 CLOSE COMBAT HEAVY
 CLOSE COMBAT LIGHT
 CLOTHING
 CMAG (CRS MSLE ADV GUID)
 CMARP (CONT MAT RANG PGM)
 CMC (CMDNT MARINE CORPS)
 CMEC (CPTRD MTRL EXP CTR)
 CMGS (CRS MSLE GUID SYS)
 CMI (CRS MSLE INTG)
 CMO (CIVIL-MIL OPS)
 CMST (CRS MSL SURVL TECH)
 COA (COURSE OF ACTION)
 COIN (COUNTERINSURGENCY)
 COLLECTION MANAGEMENT
 COLOMBIA
 COMBAT SERVICE SUPPORT
 COMBAT TALON
 COMBINED COMMAND
 COMFY LEVY
 COMFY SWORD
 COMINE (CDR MINECRAFT)
 COMINEDIV (CDR MINECFT D)
 COMINEGRP (CDR MINECFT G)
 COMMAND CENTER
 COMMAND POST
 COMMAND RELATIONSHIPS
 COMMERCIAL
 COMMINT (COMMS INTEL)
 COMMUNICATIONS
 COMMUNICATIONS EQUIP
 COMNAVAILANT
 COMNAVIRPAC
 COMNAVFORCARIB
 COMNAVINTCOM
 COMNAVSURFACE
 COMNAVSURFLANT
 COMNAVSURFPAC
 COMOCEANSUBAREA
 COMPASS CALL
 COMPUTER SIMULATION
 COMPUTER VIRUS
 COMPUTERS
 COMSEC (COMM SECURITY)
 COMUSFORCARIB
 COMUSKOREA
 COMUSMARFOR
 CONGRESS
 CONPLAN (CONTINGENCY PLN)
 CONTINUITY OF OPERATIONS
 CONTRACT MAINTENANCE
 CONUS MOVEMENT
 CONUSA
 COOP (CONTINUITY OF OPS)
 COPSAC (CONTY OPNS SAC)
 CORONET SOLO
 CORPS OF ENGINEERS

COSCOM (CORPS SPT CMD)
 COSIN (CNTL STAFF INSTR)
 COSTA RICA
 COUNTERNARCOTICS
 COUNTERTERRORIST
 CP (COMMAND POST)
 CP (CONTROL POINT)
 CPF (CARIB PEACEKPG FRCE)
 CPO (CIV PERS OFFICE)
 CPX (COMMAND POST EXER)
 CRAF (CIVIL RES AIR FLT)
 CRC (CNTL AND RPTG CTR)
 CRP (CNTL AND RPTG PT)
 CRUISER
 CSAR (CMBT SRCH AND RSCE)
 CSNP (CAUSEWAY SEC NP)
 CSP (CAUSEWAY SEC P)
 CSS (CBT SERVICE SUPPORT)
 CSS (CONTNGCY SPT STAFF)
 CTOC (CORPS TAC OPS CTR)
 CUBA
 CULTURAL
 CUWTF (CMDR UW TASK FRC)
 CVBG (CARRIER BATTLE GRP)
 CYPRUS
 CZECHOSLOVAKIA
 DA (DEPT OF THE ARMY)
 DA (DIRECT ACTION)
 DACG (DEP AF CNTL GP)
 DAME (DIV AIRSP MGT ELM)
 DARS (DAILY AERIAL RECON)
 DCA (DEF COMM AGENCY)
 DCA (DEF COUNTER AIR)
 DCS (DEF COURIER SERV)
 DCS (DEFENSE COMM SYS)
 DD (DESTROYER)
 DD FORM
 DDN (DEF DATA NETWORK)
 DE (DESTROYER ESCORT)
 DEA (DRUG ENFORCE AGENCY)
 DECEPTION OPERATIONS
 DEFCON (DEF CONDITION)
 DEFENSE NUCLEAR AGENCY
 DEFENSE RESOURCE BOARD
 DEMILITARIZED ZONE
 DENMARK
 DEPARTMENT OF COMMERCE
 DEPENDENT HOUSING
 DEPENDENT SCHOOLS
 DEPENDENTS
 DEPLOYMENT
 DESERT
 DESRON (DESTROYER SQDN)
 DF (DIRECTION FINDING)
 DFM (DIESEL FUEL MAR)
 DFO (DISASTER FIELD OFF)
 DFR (DEF FUEL REGION)
 DFSC (DEF FUEL SUP CTR)
 DFSP (DEF FUEL SUP PT)
 DIA (DEF INTEL AGENCY)
 DIEGO GARCIA
 DIRECT SUPPORT
 DIRECTIVES
 DISASTER CONTROL
 DISASTER PLAN
 DISASTER PREPAREDNESS
 DISASTER RELIEF

DISTAFF (DIRECTING STAFF)
 DISUM (DAILY INTEL SUM)
 DLA (DEF LOGISTICS AGENCY)
 DMA (DEF MAPPING AGENCY)
 DNA (DEF NUCLEAR AGENCY)
 DOD (DEPARTMENT OF DEF)
 DOD DIRECTIVES
 DOD REG
 DOD REGULATION
 DODD
 DODI
 DOE (DEPARTMENT OF ENERG)
 DOMINICAN REPUBLIC
 DON (DEPT OF NAVY)
 DOS (DAYS OF SUPPLY)
 DOT (DEPT OF TRANS)
 DPICM
 DPRE (DISP PER, REF, EVAC)
 DRAFT
 DSU (DIRECT SPT UNIT)
 DTOC (DIV TAC OPS CTR)
 DTTP (DOC, TAC, TECH, PR)
 DZ (DROP ZONE)
 E-3 AIRCRAFT
 E-3A SENTRY AIRCRAFT
 E2C HAWKEYE AIRCRAFT
 EA-6 AIRCRAFT
 EA-6B AIRCRAFT
 EAM (EM ACTION MSG)
 EARTHQUAKE
 EAST CHINA SEA
 EBS (EMERG BROADCAST SVC)
 ECCM (ELEC CNTR CNTR MES)
 ECM (ELEC CNTR MEAS)
 ECUADOR
 EEFI (ES ELE FRNDLY INFO)
 EEI (ESS ELMS OF INFO)
 EF-111 AIRCRAFT
 EGYPT
 EIS (EMERG INFO SYS)
 EL SALVADOR
 ELCAS (ELEV CSWAY SYS)
 ELINT (ELECTRONIC INTEL)
 EMP (ELEC MAGNETIC PULSE)
 ENEMY PRISONER OF WAR
 ENEMY PRISONERS OF WAR
 ENGINEER/MINES
 ENGINEERING
 ENVIRONMENTAL SERVICES
 EOB (ELEC ORDER BATTLE)
 EOB (ENEMY ORDER BATTLE)
 EOC (EMERG OPNS CTR)
 EOD (EXPL ORD DISPOSAL)
 EPA (ENVMNTL PROT AGENCY)
 EPW (ENEMY POW)
 EQUIPMENT
 EQUIPMENT TYPE
 ERCS (EMGY RCKT COMM SYS)
 ERR (EMERG RGNL RPTG)
 ERR (EMGY RCVY RECONTN)
 ERS (EMERGENCY RELO SITE)
 ESM (ELEC SPT MEAS)
 ESOC (EM SUPPLY OP CTR)
 ESTONIA
 ETHIOPIA
 EUROPE
 EUSA (EIGHTH US ARMY)

EW (ELECTRONIC WARFARE)
 EWO (ELEC WAR OFFICER)
 EWO (EMERGENCY WAR ORDER)
 EXECUTIVE ORDER
 EXERCISE DESIGN
 EXERCISE MANNING
 EXERCISE PLANNING
 EXFILTRATION
 EXOCET
 EXPLAN (EXERCISE PLAN)
 F-111 AIRCRAFT
 F-117 AIRCRAFT
 F-117A AIRCRAFT
 F-14 AIRCRAFT
 F-15 AIRCRAFT
 F-16 AIRCRAFT
 F-18 AIRCRAFT
 F-4 AIRCRAFT
 F-4G AIRCRAFT
 F/A-18 AIRCRAFT
 FAA (FED AVN ADMIN)
 FAAR (FWD AREA ACQ RADAR)
 FACILITIES
 FAME (FA AIRSPC MGT ELM)
 FAMILY SUPPORT CENTER
 FARP (FWD ARM REFUEL PT)
 FASCAM (FAM SCATTER MINE)
 FAX
 FBI (FED BUREAU OF INVES)
 FEMA (FED EMERG MGT AGCY)
 FID (FOREIGN INT DEF)
 FIELD MANUAL
 FINANCE/BUDGET
 FINLAND
 FIRE DEPARTMENT
 FIRE FIGHTING
 FIRE SUPPORT
 FIREMAIN
 FIRST AID
 FIRST AIR FORCE
 FLAGSHIP
 FLEET MARINE FORCE MANUAL
 FLIR (FWD LOOK IR RAD)
 FLTSEVOM
 FM
 FMAE (FOR MAT ACQTN EXPL)
 FMFM
 FMS (FOREIGN MIL SALES)
 FNR (FLEX NUC RESPNS)
 FOFA (FOLLOW ON FORCE AT)
 FOG
 FON (FREEDOM OF NAV OPS)
 FOOD POISONING
 FORCE STRUCTURE
 FORCE-ON-FORCE
 FORGEN (FORCE GEN REP)
 FORSCOM
 FORTRAN (FORMULA TRANS)
 FORWARD AIR CONTROLLER
 FOSIC (FL O SURV INF CTR)
 FOURTEENTH AIR FORCE
 FOURTH AIR FORCE
 FRAGMENTARY ORDER
 FRANCE
 FREQUENCY MANAGEMENT
 FRIGATE
 FRO (FLEX RESPNS OPTION)

FSC (FAMILY SVC CTR)
 FSC (FIRE SPT CRDINATOR)
 FSCC (FIRE SPT COORD CTR)
 FSS (FAST SEALIFT SHIPS)
 FTX (FIELD TRAINING EXER)
 FUNDING
 GASOLINE
 GAZA STRIP
 GENERATED FORCE SORTIES
 GENEVA CONVENTION
 GENSER (GEN SERV COMM)
 GERMANY
 GHANA
 GIANT LANCE OPERATIONS
 GIANT TALK
 GIBRALTAR
 GLCM (GRND LNCH CRS MSLE)
 GLMO (GRND LNCH MSLE OPS)
 GLOBAL WAR
 GMMIS (MAIN MAN INF SYS)
 GNW (GENERAL NUCLEAR WAR)
 GRAVES REGISTRATION
 GREECE
 GREEN PINE
 GREENLAND
 GRENADA
 GSA (GENERAL SERVICE ADM)
 GUAM
 GUANTANAMO BAY
 GUARD COMPONENT
 GUARDRAIL
 GUATEMALA
 GUINEA
 GULF OF CALIFORNIA
 GULF OF MEXICO
 GULF OF OMAN
 HAITI
 HALO (HIGH ALT LOW OPEN)
 HARDWARE
 HARPOON (ANTISURFACE MSL)
 HAVE QUICK
 HAWK MISSILE
 HC-130 AIRCRAFT
 HDC (HELO DIRECTION CTR)
 HEAT (HIGH EXPL ANTITANK)
 HELICOPTER
 HERT (HQ EMGY RELOC TM)
 HF (HIGH FREQ)
 HFDF (HF DIRECTN FINDING)
 HIMEZ (HI ALT MSL ENG ZN)
 HNS (HOST NATION SUPPORT)
 HONDURAS
 HONG KONG
 HOSPITAL
 HQDA (HQ DEPT OF ARMY)
 HST (HELO SPT TEAM)
 HTACC (HARDENED TACC)
 HUDSON BAY
 HUMAN FACTORS ENGINEERING
 HUMANITARIAN ASSISTANCE
 HUMANITARIAN SUPPORT
 HUMINT (HUMAN INTEL)
 HUNGARY
 HURRICANE
 HWM (HEALTH, WEL, MORALE)
 HYGIENE
 I HAWK MISSILE

I MAF
 I MEF
 I&W (INDICATIONS & WRNG)
 IARN (IMM AIR REQ NET)
 IAW/AA (INT ATK WRN ASS)
 ICBM (INTCNTNL BALL MSLE)
 ICD (IMITATIVE COMM DCEP)
 ICELAND
 ICP (INT THTR COMSEC PKG)
 ICP (INTEL COLLECT PLAN)
 ID CARDS
 IFF (IDENT FRIEND OR FOE)
 IFF SIF
 IFF SIF TRANSPONDER
 IFF TRANSPONDER
 IFR (INSTR FLT RULES)
 II MAF
 II MEF
 III CORPS
 III MAF
 III MEF
 IIR (INTEL INFO RPT)
 IMA (INDV MOB AUGMENTEES)
 IMA (INTMED MAINT ACT)
 IMINT (IMAGERY INTEL)
 INDIA
 INDIAN OCEAN
 INDIVIDUAL TRAINING
 INDONESIA
 INDUSTRIAL
 INF (INTR RNG NUC FORCE)
 INFANTRY DIVISION
 INFORMATION MANAGEMENT
 INOZ (INDIC AND WARN CTR)
 INTELLIGENCE
 INTELLIGENCE REPORT
 INTELLIGENCE SUMMARY
 INTEROPERABILITY
 IONDS (INTG OPNL NUC DET)
 IPB (INTEL PREP OF BFLD)
 IPIR (INIT PHOTO INT REP)
 IPP (INDUS PREP PROG)
 IR (INFRA RED)
 IRAN
 IRAQ
 IRBM (INTR RNG BALL MSLE)
 IRELAND
 ISRAEL
 ITALY
 ITO (INSTAL TRANS OFFICE)
 JAAT (JT AERIAL ATK TEAM)
 JAMPS (JINTACCS AUTO MPS)
 JAPAN
 JCCP (JT CASUALTY COL PT)
 JCE EXPLAN
 JCMEC (JT CAP MAT EX CTR)
 JCMS (JT CRISIS MGT SYS)
 JCS (JOINT CHIEFS OF STF)
 JCS EXPLAN
 JCS MOBILE COMMAND CENTER
 JCS MOP
 JCS PUB
 JCS PUBLICATIONS
 JCSE (JT COMM SPT EL)
 JDA (JT DEPLOYMENT AGENCY)
 JDA (JT DUTY ASSIGNMENT)
 JDS (JT DEPLOYMENT SYS)

JDS PROCEDURES MANUAL
 JECG (JT EX CNTL GROUP)
 JECS (JT EX CNTL SYSTEM)
 JESS (JT EX SPT SYS)
 JET A-1 (POL)
 JIC (JT INTEL CTR)
 JINTACCS (JT INT OF C2 S)
 JKAP (JT KEY ASSET PROT)
 JLOTS (JT LOG OVER SHORE)
 JMC (JT MOVEMENT CTR)
 JMCC (JT MOVE CNTL CTR)
 JMPAB (JT MAT PRI ALL BD)
 JOA (JT OPERATING AGENCY)
 JOA (JT OPERATIONS AREA)
 JOC (JOINT OPNS CENTER)
 JOINT PLANNING
 JOINT PUB
 JOINT TRAINING
 JOINT VISITORS BUREAU
 JOPES (JT OP PLN EX SYS)
 JOPS (JT OP PLAN SYS)
 JORDAN
 JP-4
 JP-5
 JPAM (JT PROG ASSMT MEMO)
 JPEC (JT PLNG EX COMMUN)
 JRAP (JT REAR AREA PROT)
 JRC (JT RECON CTR)
 JRCC (JT RESC CNTL CTR)
 JRCC (JT RESC CRDN CTR)
 JRX (JOINT READINESS EX)
 JSAK (JT ATK OF 2D ECH)
 JSCP (JT STRAT CAP PLAN)
 JSCP (JT STRAT CAP PROG)
 JSEAD (JT SUPP OF EN AD)
 JSTARS (JT SURV TGT ARS)
 JSTPS (J STR TGT PLG STF)
 JTAO (JT TAC AIR OPS)
 JTB (JT TARGETING BOARD)
 JTC3A (JT TAC C3 AGENCY)
 JTC3A CIRCULAR
 JTF (JOINT TASK FORCE)
 JTIDS (JT TAC INF DIS SY)
 JUWTF (JNT UW TASK FORCE)
 JWC (JT WARFARE CENTER)
 KA-6 AIRCRAFT
 KACC (KOR AIR COMPNT CMD)
 KAL (KEY ASSETS LIST)
 KALCC (KOR ARLFT CON CTR)
 KAMPUCHEA
 KAPP (DOD KEY ASSET PLAN)
 KATUSA (KOREA AUG TO USA)
 KC-10 AIRCRAFT
 KC-135 AIRCRAFT
 KENYA
 KUWAIT
 KY-3
 KY-38
 KY-57
 KY-65
 KY-8
 LACV (LITR AIR CSHN VEH)
 LAD (LATEST ARRIV DATE)
 LAD (LOW ALT DISPENSER)
 LAMPS (LT ABN MULTIPUR S)
 LAN (LAUNCH AFTER NUDET)
 LAN (LOCAL AREA NETWORK)

LAND WARFARE
 LANDING FORCE MANUAL
 LANDSLIDE
 LANDSOUTHEAST
 LAOS
 LAPES (LO ALT PAR EXT SY)
 LASER
 LATVIA
 LAU (LAUNCH UNDER ATTACK)
 LAV (LIGHT ARMORED VEH)
 LAW OF LAND WARFARE
 LAW OF WAR
 LAW OF WARFARE
 LCAC (LNDG CFT AIR CUSH)
 LCC (AMPHIB CMD SHIP)
 LCCO (LNCH CNTL CTR OPS)
 LCM (LNDG CRFT MECH)
 LCU (LNDG CFT UT)
 LDC (LAND DEFENSE OF US)
 LEBANON
 LEGAL
 LERTCON (ALERT CONDITION)
 LFM
 LHA (AMPHIB ASLT SHP GP)
 LHD (AMPHIB ASSAULT SHIP)
 LIAISON
 LIBERIA
 LIBYA
 LIC (LOW INTENSITY CONF)
 LIGHTERAGE
 LIMITED NUCLEAR OPERATION
 LITHUANIA
 LKA (AMPHIB CARGO SHIP)
 LO/LO (LIFT ON/LIFT OFF)
 LO/LO (LOAD ON/LOAD OFF)
 LOC (LINE OF COMMS)
 LOCAL POPULACE CONTROL
 LOGEX (LOGISTICS EXER)
 LOGISTIC STATUS REPORT
 LOGISTICS
 LOGISTICS STATUS REPORT
 LOI (LTR OF INSTRUCT)
 LOOTING
 LORAN (LONG RNG AID NAV)
 LOTS (LOG OVER THE SHORE)
 LPA (AMPHIB TRANSPORT)
 LPD (AMPHIB ASSAULT SHIP)
 LPEC (LOG PLNG EX CTR)
 LPES (LOG PLNG EXEC SYS)
 LPH (AMPHIB ASSAULT SHIP)
 LS (LANDING SITE)
 LSD (LANDING SHIP DOCK)
 LST (LANDING SHIP TANK)
 LUA (LAUNCH UNDER ATTACK)
 LWWR (LTWT E WRN RADAR)
 LZ (LANDING ZONE)
 M-1 TANK
 M2 IFV (INF FIGHT VEH)
 M3 CFV (CAV FIGHT VEH)
 M551 SHERIDAN
 M60-A3 TANK
 MAC (MILITARY ARLFT CMD)
 MACA (MIL ASST CIV AUTH)
 MACCS (USMC AIR C2 SYS)
 MAGIS (MAR A/GND INT SYS)
 MAGTF (MAR AIR GND TF)
 MAINTENANCE

MAIRS (MAC ALFT INT RP S)
 MALAYAN SEA
 MALAYSIA
 MANPOWER & PERSONNEL
 MAO (MAJOR ATK OPTIONS)
 MARAD (MARITIME ADMIN)
 MARG (MED AMPHIB RDY GRP)
 MARS (MIL AFFIL RAD STA)
 MARSHALLING AREA
 MASS CASUALTIES
 MATERIEL
 MATING AND RANGING
 MC&G (MAPPING, CHARTING,)
 MC-130 AIRCRAFT
 MCCRES (MC CBT RDY EVAL)
 MCM (MINE COUNTERMEASURE)
 MDWS (MSLE DETN WARN SYS)
 MDZ (MARIT DEF ZONE)
 MEB (MAR EXPED BDE)
 MEDCAP (MED CIV ASST PGM)
 MEDEVAC (MEDICAL EVAC)
 MEDICAL
 MEDITERRANEAN SEA
 MEDRETE (MED-DNT TRNG EX)
 MEF (MAR EXPED FORCE)
 MERCHANT SHIPS
 MERP (MIL EMER RESP PLAN)
 MESSAGE TRAFFIC
 MEU (MAR EXPED UNIT)
 MEWS (MSLE ERLY WARN SYS)
 MEXICO
 MH-53 HELICOPTER
 MH-60 HELICOPTER
 MIB (MSLE INTERCPTN BASE)
 MIBARS (MI BN/AIR REC SP)
 MUI (MCNG INTR JAM INTR)
 MILITARY SERVICE HQ
 MILPERCEN (MIL PERS CTR)
 MILSTAMP
 MILSTRIP
 MINEFIELD
 MINES
 MIRV (MULT IND TGT REE V)
 MISSILE INTERCEPTION
 MISSILE RECONSTITUTION
 MISSILE REPROGRAMMING
 MITO (MIN INTL TAKEOFF)
 MJNPE (MOB JT NUC PLN EL)
 MOA (MEMO OF AGREEMENT)
 MOBILIZATION
 MOGAS (MOTOR GASOLINE)
 MONGOLIA
 MOPP (MSN ORN PROT POS)
 MOROCCO
 MORTUARY
 MOS (MIL OCC SPECIALTY)
 MOUNTAIN
 MOUT (MIL OPS URBAN TER)
 MPC (MSG PROCESSING CTR)
 MPF (MARITIME PREPOS FRC)
 MPS (MARITIME PREPOS SHP)
 MRBM (MED RNG BALL MSLE)
 MSAP (MIL SCTY ASST PROG)
 MSAP (MIL SPON AIR PROBE)
 MSC (MAJOR SUB CMD)
 MSC (MIL SEALIFT CMD)
 MSCD (MIL SPT TO CIVIL D)

MSEL (MASTER SCN EV LIST)
 MSO (MINESWEEPER OCEAN)
 MSR (MAIN SUPPLY ROUTE)
 MTF (MED TREATMENT FAC)
 MTF (MESSAGE TEXT FORMAT)
 MTMC (MIL TRAFFIC MGT CD)
 MTT (MOBILE TRNG TM)
 MWA (MIN WRNG ATK)
 MWAP (MIN WRNG ATK PLN)
 MWC (MSLE WARN CTR)
 MWDC (MSLE WARN DISP CTR)
 MWO (MSLE WARN OFFICE)
 NACOM (NAT ALRT COMMS)
 NAEW (NATO ABN ERLY WRN)
 NAIC (NUC ACC/INCD CNTL)
 NATIONAL GUARD
 NATIONAL GUARD BUREAU
 NATO
 NATO STANAG
 NATOPS
 NATURAL DISASTER
 NATURAL GAS
 NAVAL FORCES CARIBBEAN
 NAVAL GUNFIRE
 NAVAL WARFARE
 NAVAL WARFARE PUB
 NAVSEA
 NBC (NUC, BIO, CHEM)
 NCA (NATIONAL CMD AUTH)
 NCPS (NUC CONT PLNG SYS)
 NDMS (NAT DIS MED SYS)
 NDS (NUDET DETECTION SY)
 NE ASIA
 NEACP (NATL EMERG ABN CP)
 NEO (NONCOMBATANT EVAC)
 NEST (NUC ENGY SRCH TM)
 NETHERLANDS
 NETWORKS
 NEW ZEALAND
 NFA (NO FIRE AREA)
 NICARAGUA
 NIEX (NO NOTE INTER EXER)
 NIGHT
 NIS (NAVAL INVEST SVC)
 NMCC (NTL MIL CMD CTR)
 NMCM (NOT MSN CAP MAINT)
 NMCP (NAV MIL PERS CMD)
 NMCS (NOT MSN CAP SUPPLY)
 NOAA (NAT OC & ATMOS AD)
 NOD (NIGHT OBS DEVICE)
 NOG (NUCLEAR OPNS GP)
 NOGAPS (WX PREDICT SYS)
 NOMS (NUC OPS MON SYS)
 NON-SIOP OPTION EXECUTION
 NOP (NUC OPER PLAN)
 NORAD - US ELEMENT
 NORTH AMERICA
 NORTH ATLANTIC
 NORTH CHINA SEA
 NORTH KOREA
 NORTH SEA
 NORTHAG (NORTH ARMY GP)
 NORWAY
 NPC (NUC PLNG CELL)
 NPE (NUC PLNG EXEC)
 NPES (NUC PLNG EXEC SYS)
 NPG (NUC PLNG GRP)

NSA (NATL SECURITY AGENCY)
 NSA (NAVAL SPT ACTIVITY)
 NSA (NAVY SPT ACTIVITY)
 NSC (NATIONAL SEC CNCL)
 NSN (NATIONAL STK NO)
 NSNF (NON STRAT NUC FRCS)
 NSO (NON-SIOP NUC OPTNS)
 NSOG (NON-SIOP OPTN GEN)
 NSWTG (NAV SP WF TSK GP)
 NTDS (NAVY TAC DATA SYS)
 NUC WPNS EMPL P/P
 NUCAP (NUC CAP DATA BASE)
 NUCEA (NUC WPNS AVAIL)
 NUCSTAT (NUC OPL STAT RP)
 NUCWA (NUC WPNS ACNT SY)
 NUDET (NUC DETONATION)
 NUDETS (NUC DETN SYS)
 NUDIS (NUC DET INFO SMRY)
 NUDIS (NUDET DMG INFO SY)
 NUREP (NUCLEAR REPORTING)
 NUWAX (NUC WPN ACC)
 NVG (NIGHT VIS GOGGLES)
 NWMP (NUC WPNS MAST PLAN)
 NWP
 NWP (NAVAL WARFARE PUB)
 NWRP (NUC WPNS REL PROCS)
 NWS (NUC WPNS STG SITES)
 NWSG (NUC WPNS STATUS GP)
 O&M FUNDS
 OA-37 AIRCRAFT
 OA-37B AIRCRAFT
 OAS (OFFENSIVE AIR SPT)
 OAS (ORGAN AMER STATES)
 OBJECTIVES
 OCA (OFF COUNTER AIR)
 OCEAN/SEA
 OES (OFC EMERG SVC)
 OH-58 HELICOPTER
 OH-58C HELICOPTER
 OH-58D HELICOPTER
 OMAN
 ONPG (OPNL NUC PLNG GP)
 OOB (ORDER OF BATTLE)
 OPCOM (OPERATIONAL CMD)
 OPCON (OPERATIONAL CNTL)
 OPDEC (OPERATIONAL DECEP)
 OPDS (OFFSHR PET DIS SHP)
 OPERATIONAL TASKS
 OPERATIONS
 OPERATIONS CENTER
 OPGEN (OPLAN GENERATION)
 OPLAN
 OPLAN (OPERATIONS PLAN)
 OPM (OFFICE OF PERS MGT)
 OPNAVINST
 OPORD (OPERATIONS ORDER)
 OPSEC (OPS SECURITY)
 OPSUM (OPERATIONS SUMMRY)
 ORDERS/GUIDANCE
 ORDNANCE
 ORF (OPNL READINESS FLT)
 OSD (OFFICE OF SECDEF)
 OSIS (OCN SURV INFO SYS)
 OTC (OFFICER IN TAC CMD)
 OTHER AGENCIES
 OTHER PUBLICATIONS
 OV-10 AIRCRAFT

PACCS (PST ATK C2 SYS)
 PACIFIC AIR FORCES
 PACIFIC FLEET
 PACIFIC OCEAN
 PACKET RADIO
 PAKISTAN
 PANAMA
 PARAGUAY
 PARARESCUE
 PARKHILL
 PARPRO (PTIME AER RCN PM)
 PAVE PENNY
 PCC (PANAMA CANAL COMM)
 PCL (POS CNTL LAUNCH)
 PCS (PRIMARY CONTROL SHP)
 PEAD (PRES EMERG ACT DOC)
 PEMS (POST EXCN MNTRY SY)
 PER DIEM
 PERINTSUM (PER INTEL SUM)
 PERSIAN GULF
 PERSONNEL REPORT
 PERSONNEL SHORTAGE
 PERU
 PHILIPPINES
 PHOTINT (PHOTO INTEL)
 PHYSICAL SECURITY
 PIER
 PIR/EEI (PRIORITY INTEL)
 PK (PROBABILITY OF KILL)
 PLANS
 PLRS (POS LOC REP SYS)
 PLS (PRE LAUNCH SURVBLTY)
 PME (PROF MIL EDUCATION)
 POD (PORT OF DEBARKATION)
 POE (PORT OF EMBARKATION)
 POI (PROGRAM OF INST)
 POL (PET, OILS, AND LUB)
 POLAND
 POLICE DEPARTMENT
 POLITICAL
 POLITICAL ADVISOR
 POLO HAT
 POM (PROC FOR OSEAS MOVE)
 POM (PROGRAM OBJ MEMO)
 POMCUS
 PORTUGAL
 POST-ATTACK OPERATIONS
 POST-ATTACK PERIOD
 POSTAL
 POTABLE WATER
 POV (PRVT OWNED VEH)
 POW (PRISONERS OF WAR)
 POWER PROJECTION
 PPA (PRNCPL PLNG AGT)
 PPBS (PLNG PROG BUD SYS)
 PRE-ATTACK OPERATIONS
 PRE-ATTACK PERIOD
 PRI ABN C2 SYS
 PROJECT HANDCLASP
 PRT (PARARESCUE TEAM)
 PSYOPS (PSYCHOLOGICAL OP)
 PUBLIC AFFAIRS
 PUBLIC WORKS
 PUERTO RICO
 PWRMS (PRP WRES MED STK)
 PWRMS (PREPOS WAR RES STK)
 QATAR

QUICK START
 RACAS (REAR AREA CAS)
 RADAR
 RADBN (RADIO BATTALION)
 RADC (REGNL AIR DEF CDR)
 RADIO TELETYPE
 RADIOS
 RAID
 RAIL MOVEMENT
 RANGER BATTALION
 RAOC (REGNL AIR OP CTR)
 RAP (REAR AREA PROT)
 RAPIER (RAP EMGY RES TM)
 RDA (RECON DAMAGE ASSESS)
 READINESS
 RECA (RESIDUAL CAP ASSMT)
 RECAS (RES CAP ASSMT SYS)
 RECON & DAMAGE ASSESSMENT
 RECONNAISSANCE
 RECONSTITUTION FORCE
 RED CROSS
 RED SEA
 REDEPLOYMENT
 REDUCED VISIBILITY
 REFUGEES
 REGIONAL CRISIS
 REIS (RECNSTBL END IN SY)
 REPOL (POL DAM & DEF RPT)
 REPORTING
 RESC (RCNBL END SATCOM S)
 RESERVE COMPONENT
 RESTRIKE OPERATIONS
 RF-14 AIRCRAFT
 RFB (RGNL FIELD BD)
 RFI (RADIO FREQ INTER)
 RIVET JOINT
 RMEC (RGNL MIL EMG COORD)
 RNO (RGNL NUC OPTIONS)
 RNSP (RES NUC STK PLN)
 RO/RO (ROLL ON/ROLL OFF)
 ROE (RULES OF ENGAGEMENT)
 ROK NAVY
 ROKA (ROK ARMY)
 ROKAF (ROK AIR FORCE)
 ROLES AND MISSIONS
 ROMANIA
 ROWPU (REV OS WTR PUR U)
 RPV (REMOTE PILOTED VEH)
 RRDF (RO/RO DISCH FAC)
 RSR (RESUPPLY RATE)
 RTIP (REL TGT INIT PT)
 RUNWAY
 RUSSIA
 RWO (REAL WORLD OPS)
 SAC (STRATEGIC AIR CMD)
 SAC MANUAL
 SAC PAMPHLET
 SAC REGULATION
 SACCOP (SAC CONTY OPNS)
 SACCs (SAC AUTO C2 SYS)
 SACEUR
 SACINTNET (SAC INTEL NET)
 SACM
 SACOM (SURV ACFT CRS MSL)
 SACOS (STR AR CBT OPS SF)
 SACP
 SACPAS (SAC PRM ALRT SYS)

SACR
 SACRIN (SAC RDNS INF NET)
 SACWARNS (STRAT WARN SYS)
 SADIFS (SAC AUTO DEP SYS)
 SADO (STRG ARCFT DISP OP)
 SAFETY
 SAG (SURFACE ACTION GRP)
 SALM (SINGLE ANCHOR MOOR)
 SAM (SURFACE TO AIR MSLE)
 SANDSTORM
 SAO (SECNDRY ATK OPTIONS)
 SAR (SEARCH AND RESCUE)
 SAR (STRAT ARCFT RECONTN)
 SART (STRAT ACFT RCNS TM)
 SASS (SIOP AD SP SPT SYS)
 SATCOM (SATELLITE COMM)
 SATELLITE
 SATIN (SAC AUT TOT INF N)
 SAUDI ARABIA
 SAWVS (SAT ATK WNG VER S)
 SBU (SPECIAL BOAT UNIT)
 SCCS (SAC CMD CONF SYS)
 SCENARIO
 SCHEDULING
 SCI (SPEC COMP INFO)
 SCIF (SCI FACILITY)
 SCR (STRAT RECON CTR)
 SCUD
 SDV (SEAL DEL VEHICLE)
 SE ASIA
 SEA OF JAPAN
 SEA OF OKHOTSK
 SEABEES
 SEAD (SUPP OF ENEMY AD)
 SEAL PLATOON
 SEAL TEAM
 SEALIFT
 SEALS
 SECC (SURV ENDR CMD CTR)
 SECNAV (SECRETARY NAVY)
 SECOND FLEET
 SECURITY ASSISTANCE
 SECURITY CLEARANCE
 SENEGAL
 SENSORS
 SERE (SURV EV RES ESC)
 SERVICE PUBLICATIONS
 SEYCHELLES
 SFOB (SF OPERATING BASE)
 SH-2F HELICOPTER
 SH-60 HELICOPTER
 SH-60B HELICOPTER
 SHAPE
 SHIP-TO-SHORE OPERATIONS
 SI (SPECIAL INTEL)
 SI&W (STRAT IND & WARN)
 SIDA (SIOP INTG DATA BSE)
 SIDAC (SGL IN DAM AS CAP)
 SIDPERS
 SIGINT (SIGNALS INTEL)
 SILKWORM
 SINGAPORE
 SINGLE SERVICE ISSUE
 SIOP (SNGL INTD OPNL PLN)
 SIOP EXECUTION
 SIOP GENERATION
 SIOP RECONNAISSANCE PLAN

SITMAP (SITUATION MAP)
 SITREP (SITUATION REPORT)
 SIV (SPEC INTR VESSEL)
 SIXATAF
 SIXTH FLEET
 SLAR (SIDE LOOK ABN RADR)
 SLBMAN (SLBM ALRTG NETWK)
 SLCM (SEA LNCHD CRS MSLE)
 SLFMS (SAC LOG FRC MGT S)
 SLMO (SEA LNCHD MSLE OPS)
 SLWT (SIDE LD WARP TUG)
 SM-1 STANDARD MISSILE
 SNP (STRAT NUC PLNG)
 SOC (SECTOR OPS CENTER)
 SOCCENT
 SOCEUR
 SOCLANT
 SOCPAC
 SOCSO
 SOCSOUTH
 SOF (SPECIAL OPS FORCES)
 SOFTWARE
 SOMALIA
 SOP (STANDING OP PROC)
 SOSUS (SOUND SURV SYS)
 SOURCES AND METHODS
 SOUTH AFRICA
 SOUTH AMERICA
 SOUTH CHINA SEA
 SOUTH KOREA
 SOUTHAG (SOUTHERN ARMY G)
 SPACE OPERATIONS
 SPAIN
 SPECIAL BOAT SQUADRON
 SPECIAL FORCES
 SPECIAL INTEREST ITEM
 SPECIAL OPERATIONS
 SPECIAL OPERATIONS AGENCY
 SPECIFIED COMMAND
 SPOD (SEA PORT OF DEB)
 SPOE (SEA PORT OF EMB)
 SPOT REPORT
 SR-71 AIRCRAFT
 SR-71 STRAT RECON
 SRBM (SHT RNG BALL MSLE)
 SRF (STRAT RESRV FORCE)
 SRP (SIOP RECON PLAN)
 SRR (SURV, RECOV RECONTN)
 SRT (STRAT REL TGTS)
 SS (SUBMARINE)
 SSB (SUB, BALL MSLE)
 SSBN (SUB, BALL MSLE, NUC)
 SSGN (NUC SUB GD MSLE)
 SSM (SURF TO SURF MSLE)
 SSN (NUC ATK SUB)
 SSP (STRAT STRIKE PLAN)
 STAFF FUNCTIONS
 STANAG
 STARC (STAT AREA RES CTR)
 STARC (STATE AREA CMD)
 STATE DEPARTMENT
 STIL (SHT TME INTVL LNCH)
 STRATEGIC AIRLIFT
 STRATEGIC RECONNAISSANCE
 STRATEGIC SEALIFT
 STRATEGIC TARGETING
 STRATEGIC WEAPONERING

STRIKE
 STRIKE FLEET ATLANTIC
 STS (STRAT TARG SELECT)
 STU (SECURE TELE UNIT)
 STU-III (SECURE TELE UNT)
 STV (STRAT TGT VALIDN)
 SUBMARINE WARFARE
 SUBRON (SUBMARINE SQDN)
 SUDAN
 SUPPLY
 SUPPORTED CINC
 SUPPORTED COMMANDER
 SUPPORTING CINC
 SUPPORTING CINCS
 SUPPORTING COMMANDER
 SUPPORTING FORCES
 SURFACE
 SURVEILLANCE
 SW ASIA
 SWCS (SAC WARN CNTL SYS)
 SWITZERLAND
 SWOPS (SPCL WPN ORD PUBS)
 SYRIA
 TAC (TACTICAL AIR CMD)
 TAC TRADOC MANUAL
 TACC (TAC AIR CNTL CTR)
 TACLOG (TAC LOG GRP)
 TACP (TAC AIR CNTL PARTY)
 TACP (THTR AMMO CNTL PT)
 TACS (TAC AIR CNTL SYS)
 TACSIM (TAC SIMULATOR)
 TACTICAL MOBILITY
 TACTICAL NET
 TACTICAL OPERATIONS CTR
 TAD (TEMP ADD DUTY)
 TADIL
 TADS (TAC AIR DEF SYS)
 TAIWAN
 TAOC (TAC AIR OPS CTR)
 TARGETING
 TARN (TAC AIR REQ NET)
 TARPS (TAC AIR RCN PODS)
 TARS (TAC AIR REQ SYS)
 TASK ORGANIZATION
 TAVB (AV LOG SPT SHIP)
 TDY (TEMPORARY DUTY)
 TECHNICAL MANUAL
 TELETYPE
 TEMPEST
 TGT DGZ DESIG
 THAILAND
 THIRD FLEET
 THIRD US ARMY
 TIP (TGT INTEL PACKAGE)
 TLCF (TELECONFERENCE)
 TM
 TM (TECHNICAL MANUAL)
 TNF (THEATER NUC FORCES)
 TNW (THEATER NUC WPNS)
 TNWS (TAC NUC WPNS)
 TOILET
 TORPEDOES
 TOW (TB LNCH OPT TRK WG)
 TPFDD (TIME PHSD FRC DEP)
 TPFDL (TPFDD LIST)
 TRANS-ATTACK OPERATIONS
 TRANS-ATTACK PERIOD

TRANSMISSION SYSTEMS
TRANSPORTATION
TRITAC (TRI SVC TAC COMM)
TRO (TANKER RCVY OPS)
TROPICS
TUCHA (TYPE UN CHAR FILE)
TUNISIA
TURKEY
TW/AA (TAC WRN/ATK ASSES)
U-2 AIRCRAFT
U-2 STRAT RECON
UGANDA
UH-1 HELICOPTER
UH-6 HELICOPTER
UH-60 HELICOPTER
UHF (ULTRA HIGH FREQ)
UNC (UNITED NATIONS CMD)
UNCONVENTIONAL WARFARE
UNIFIED COMMAND
UNIT TRAINING
UNITED ARAB EMIRATES
UNITED KINGDOM
UNITED STATES
URBAN
URUGUAY
US NAVAL FORCES EUROPE
USA (US ARMY)
USAF (US AIR FORCE)
USCENTCOM
USCG (US COAST GUARD)
USCOMSOLANT
USEUCOM
USFK (US FORCES KOREA)
USFORCARIB
USFORJAPAN
USIA (US INFORMATION AGY)
USLANTCOM
USMC (US MARINE CORPS)
USN (US NAVY)
USPACOM
USREDCOM
USSOCOM
USSOUTHCOM
USSPACECOM
USSR
USTRANSCOM
UTILITIES
VACCINE
VEHICLE CONVOY
VENEZUELA
VFR (VISUAL FLT RULES)
VHF (VERY HIGH FREQ)
VIETNAM
VTS (VESSEL TRACKING SYS)
WAR RESERVE STOCK
WATER SUPPLY
WEATHER SUPPORT
WG (WAR GAME)
WIN (WWMCCS INTER NET)
WIRE
WIS (WWMCCS INFO SYS)
WOC (WING OPS CTR)
WSR (WPNS STATUS RPT)
WWABNCP (WLDWD ABN CP)
WWIMS (WLDWD IND MON SYS)
WWMCCS (WW MIL C2 SYS)
XVIII AIRBORNE CORPS

XVIII CORPS
YELLOW SEA
YEMAN
YUGOSLAVIA
ZAIRE
ZAMBIA
ZIMBABWE

APPENDIX F - LESSON LEARNED FORMATS

1. The following general rules MUST be followed when typing an after-action report:

- a. Acronyms must be spelled out the first time they appear in any MCLL record. The acronym "CAS", for example, can apply to either "CAS (Close Air Support)" or "CAS (Crisis Action System)". To avoid ambiguity, accompanying the acronym with the full meaning facilitates clear understanding. Once "defined" for that lesson learned or summary, the acronym can be used by itself in subsequent paragraphs.
- b. Command designations must be explained the first time they are used in a narrative.
- c. Each lesson learned must stand alone (i.e. it must make sense without reference to any other lesson learned).
- d. Each lesson learned should be written so that it can be understood and properly interpreted by personnel from all services and all theaters.
- e. See Appendix F for a long list of current MCLLS keywords and their spellings, especially the truncated words and phrases.
- f. Enter narrative data in standard upper and lower case, rather than in all capital letters.
- g. Clarity and brevity are important. Each lesson learned narrative is limited by the MCLLS software to 10,000 characters.

2. MCLLS Exercise or Operation Summary Format Requirements. For each exercise or operation summary, the following paragraphs must appear in the narrative description:

5. (?) GENERAL DESCRIPTION:

Short description of the operation or exercise, including general statements of the scope and purpose.

6. (?) DATES:

As a minimum, dates of actual or simulated combat operations. Paragraph will also include mobilization, deployment, redeployment or other significant dates.

7. (?) LOCATION OF OPERATIONS:

A short but meaningful list of actual or simulated locations of combat operations. An exhaustive list is not necessary, but "Western Hemisphere" is too vague.

8. (?) LOCATION OF PERSONNEL:

Locations(s) of participants, especially if different from the location of actual or simulated combat operations.

9. (?) OBJECTIVES:

A short but meaningful list of operation or exercise objectives. A detailed list of all objectives is not necessary, but "improve force readiness" is too vague.

10. (?) LIMITATIONS:

Specific operation or exercise limitations, including geographic limits to operations, simulation of forces or other significant limitations.

11. (?) MAJOR PARTICIPANTS:

A short but meaningful list of the major participants. An exhaustive list is not necessary, but "US Army" is too vague. Identification should be understandable to personnel from other services.

12. (?) COMMANDERS COMMENTS:

The commanders comments specifically identify significant innovations and lessons learned as well as areas in which deficiencies exist in doctrine, organization, training and education, and equipment. Commander's comments that recommend the inclusion of a Remedial Action (RA) item in the Marine Corps Remedial Action Program (RAP) should be supported by a detailed individual lesson learned.

NOTE: The (?) represents the location where the classification for the paragraph is placed. Every paragraph MUST have a classification entry, even if "U" for Unclassified.

3. MCLLS Lesson Learned Format Requirements. For each of the individual lesson(s) learned that follows the exercise or operation summary, the following paragraphs must appear in the narrative description(s):

5. (?) OBSERVATION:

A short statement of the problem. Paragraph will identify the problem, not just one of its symptoms (e.g., a shortage of 155mm ammunition--the symptom--could result from ammunition being misplaced, destroyed in transit, not scheduled for shipment, or not purchased in sufficient quantities). It is important to identify the problem because

the required corrective action and action agency may be different for each problem. The symptom, a shortage at the user level, can be misleading. Try to limit each lesson learned to a single problem or successful action. Multiple problems in one lesson learned create confusion, thereby making it more difficult to identify each individual problem.

6. (?) DISCUSSION:

Amplified problem statement and answers to the "who, what, where, when, why and how" questions about the problem. If the lesson learned describes the positive actions taken to work around the problem, explain those actions in detail. If the problem could not be solved by the participants, explain why.

7. (?) LESSON LEARNED:

The lesson learned states how to work around the problem, which other commanders can use while a permanent solution is being achieved. Avoid restating or rephrasing the problem, concentrating instead on the positive actions that overcame the problem.

8. (?) RECOMMENDED ACTION:

Statement on how to correct the problem permanently and who should make the correction (e.g., "the Joint Chiefs of Staff should develop a systematic process to identify and resolve joint doctrine problems"). The action could result in requiring new or modified publications, procuring new equipment, changing force structure, revising command relationships, improving training, etc. If no corrective action is necessary, enter "None required" in the recommended action paragraph.

9. (?) COMMENTS:

Other information the submitting organization wishes to add.

NOTE: The (?) represents the location where the classification for the paragraph is to go. Every paragraph MUST have a classification entry, even if "U" for Unclassified.

4. Each lesson learned should describe a problem that was encountered and the positive actions the participants took to bypass or alleviate that problem, a problem that was encountered for which no solution was found, or those successful actions that should be noted for future operations or exercises.

5. In the narrative descriptions, the highest paragraph in a hierarchy of paragraphs MUST have the same classification as the highest classification of any paragraph in the hierarchy.

For example:

6. (?) DISCUSSION: During the exercise, the following problems were found regarding cold weather gear:

- a. (?) ...
- b. (?) ...
 - (1). (?) ...
 - (2). (?) ..
- c. (?) ...

Assuming sub-paragraphs (a) and (c) are Unclassified, if the sub-paragraph (1) has a classification of Confidential, then sub-paragraph (b) and paragraph 6 MUST be classified Confidential even if the paragraphs do not have any Confidential material in them.

6. The classification of the MCLL must be equal to the highest classification of any paragraph in the narrative descriptions.

NOTE: Paragraphs 1-4 contain administrative data and keywords.